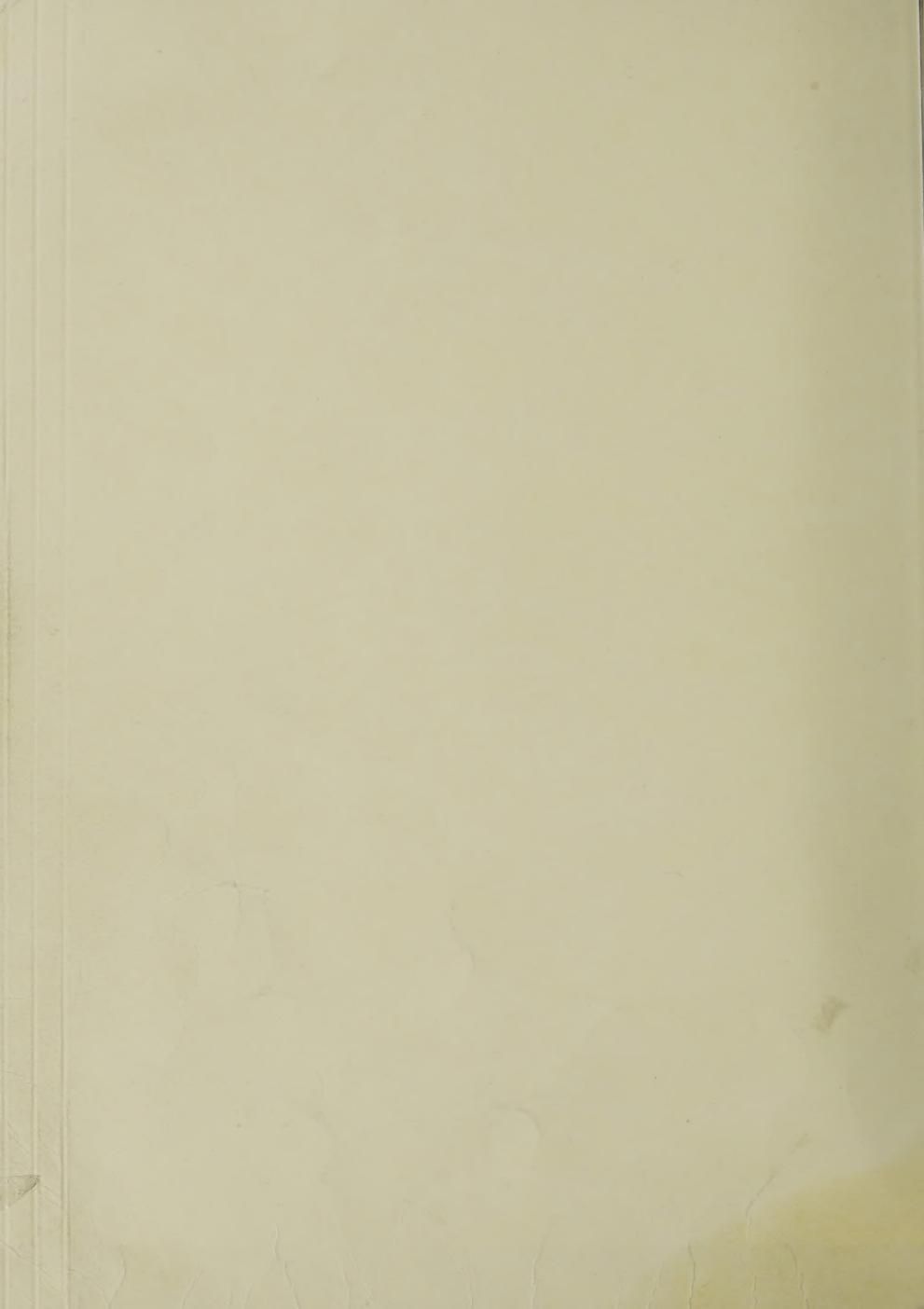
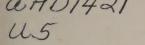
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United States
Department of
Agriculture

Foreign Agricultural Service

Circular Series WAP 3-91 March 1991

### World Agricultural Production

### **Major Crop Production Highlights**

Wheat. Forecast 1990/91 world wheat production is largely unchanged from last month, down slightly but still a record.

Coarse Grains. Forecast 1990/91 global coarse grain production is down marginally from last month. Prospective corn and sorghum crops in Argentina are up because of generally excellent growing conditions to date. On the down side, the Brazilian corn crop is forecast lower due to continued dry conditions in the south. In addition, forecast sorghum production in South Africa is below last month's estimate as plantings were less than expected.

Rice. Prospective 1990/91 global rice production is forecast down slightly from last month. A smaller crop in Pakistan accounts for most of this month's change.

Oilseeds. World oilseed production during 1990/91 is forecast at a record level, up slightly from last month. Larger cottonseed and rapeseed crops more than offset a decline in soybean production. Brazil's soybean crop is estimated at 17.0 million tons, down 0.5 million from February. Dry weather in southern Brazil, particularly in Rio Grande Do Sul, has af-

fected yield potential, however, conditions in the center-west states have been favorable.

Cotton. The 1990/91 world cotton crop is projected up slightly from last month. Most of the change in output reflects an upward revision in China's crop to 20.5 million bales. Production was also increased in Pakistan to a record 7.3 million bales.

Production Articles
This Month....

World Cocoa

World Meat

World Soybeans

European Forestry

Malaysian Palm Oil

Yugoslav Grain

This report draws on information from USDA's global network of agricultural attaches and counselors, official statistics of foreign governments, other foreign source materials, and results of office analysis. Estimates of U.S. acreage, yield, and production are from USDA's Agricultural Statistics Board, except where noted. Text and numbers in this report are based on unrounded data and detail may not add to totals because of rounding. This report reflects official USDA estimates released in World Agricultural Supply and Demand Estimates (WASDE-252), March 11, 1991.

This report was prepared by the Production Estimates and Crop Assessment Division (PECAD), FAS/USDA, Washington, D.C. 20250. Further information may be obtained by writing to the division or by calling (202) 382-8888 or by FAX (202) 447-7729.

CONTRACTOR		Wanter De
CONVERSION T	ABLE	
Metric Tons to Bushels	Metric Tons to	480-lb. Bales
Wheat & Soybeans = MT*36.7437 : Corn, Sorghum, Rye = MT*39.36825 : Barley = MT*45.929625 :	Cotton	= MT*4.592917
Oats = MT*68.894438		Hundredweight
1 hectare = 2.471044 acres = 2.204622 pounds	Rice	=MT*22.04622

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### PRODUCTION HIGHLIGHTS FOR 1990/91

### March 1991

WHEAT: World production for 1990/91 is estimated at a record 589.0 million metric tons, down marginally from last month but, up 10 percent from last year's harvest. Foreign production is projected at 514.5 million tons, nearly unchanged from last month but up 7 percent from last year. Country highlights are as follows:

- o <u>United States</u> Production is estimated at 74.5 million tons, up 34 percent from last year. There was no change this month.
- Production is estimated at 44.8 million tons, up
  0.1 million or less than 1 percent from last
  month and up 1 percent from last year.
  Harvested area is estimated up in Bulgaria.
- Production is estimated at 1.7 million tons, down 0.1 million or 5 percent from last month and down 16 percent from 1989/90. Official South African statistics reported a lower yield.

COARSE GRAINS: World production for 1990/91 is estimated at 825.7 million tons, down 0.2 million or less than 1 percent from last month, but up 3 percent from last year. Foreign production is projected at a record 595.1 million tons, down marginally from last month, but up 2 percent from last year. Country highlights are as follows:

- o <u>United States</u> Production is estimated at 230.6 million tons, up 4 percent from last year. There were no changes this month.
- Production is estimated at 61.5 million tons, up
  0.2 million or less than 1 percent from last
  month, but down 10 percent from last year.
  Upward yield revisions were made for Bulgarian
  barley, corn, and oats.
- Production is estimated at 24.4 million tons, down 0.5 million or 2 percent from last month, but up 8 percent from last year. Corn yield prospects in the center-south growing region were hurt by continued dry weather.
- Production is estimated at 10.4 million tons, up 0.6 million tons or 6 percent from last month and up 26 percent from last year. Beneficial spring and summer rains have increased estimated yields for corn and sorghum. Growing conditions are reportedly the best in the last five years.

### o South Africa

Production is estimated at a 6.5 million tons, down 0.4 million or 5 percent from last month and down 36 percent from last year. The decline is attributed to lower estimated sorghum area.

RICE (MILLED-BASIS): World production for 1990/91 is estimated at a record 349.7 million tons, down 0.2 million or less than 1 percent from last month, but up 1 percent from the 1989/90 crop. Foreign production is projected at a record 344.8 million tons. Country highlights are as follows:

o United States

Production is estimated at 4.9 million tons, down 4 percent from last season. There was no change this month.

o Pakistan

Production is estimated at 3.1 million tons, down 0.4 million or 10 percent from last month and down 2 percent from last year's crop. Harvested area and yields are estimated lower owing to losses in the Basmati rice heartland of Punjab Province.

o Cambodia

Production is estimated at a 1.3 million tons, up 0.2 million or 20 percent from last month, but down 22 percent from last year's crop. The increase is due to higher estimated harvested area.

OILSEEDS: Total world oilseeds production during 1990/91 is forecast at a record 217.3 million tons, up 0.4 million from last month and up 3.4 million or 2 percent from 1989/90. Foreign production during 1990/91 is projected to be a record 156.7 million tons, up 0.4 million from last month and up 2.1 million or 1 percent from last year. U.S. total oilseed production is unchanged from last month at an estimated at 60.6 million tons, up 1.3 million or 2 percent from last year.

- \* Soybeans: World production for 1990/91 is estimated at 104.5 million tons, down 0.5 million from last month and down 2.3 million or 2 percent from last year. Total foreign soybean output is estimated at 52.2 million tons, down 0.5 million or 1 percent from last month and down 2.2 million or 4 percent from 1989/90. Country highlights are as follows:
  - o Brazil

Production is estimated at 17.0 million tons, down 0.5 million or 3 percent from last month and down 15 percent from 1989/90. The persistently dry conditions in the southern state of Rio Grande Do Sul are reducing yield potential. However, excellent rainfall in the center-west states is expected to bolster output.

- \* Cottonseed: World production for 1990/91 is forecast at 34.1 million tons, up 0.5 million or 1 percent from last month and up 2.8 million or 9 percent from last year. Total foreign production is estimated at 28.6 million tons, up 0.5 million or 2 percent from last month and up 1.5 million or 6 percent above last year. Country highlights are as follows:
  - o China

Production is estimated at 7.6 million tons, up 0.4 million or 6 percent from last month and up 17 percent from last year. The new estimate is based on official Chinese Government statistics and reflects higher-than-expected cotton yields.

o Pakistan

Production is estimated at a record 3.2 million tons, up 0.1 million or 4 percent from last month and up 9 percent from last year's crop. Cotton yields improved considerably owing to better supplies of fertilizer and irrigation water. Pest damage remained insignificant.

- \* Peanuts: World production for 1990/91 is forecast at 21.4 million tons, down marginally from last month and down 0.5 million or 2 percent from 1989/90. Total foreign production is estimated at 19.8 million tons, down marginally from last month and down 0.3 million tons or 2 percent from 1989/90.
- \* Sunflowerseed: World production for 1990/91 is forecast at 21.7 million tons, up 0.1 million or less than 1 percent from last month, but down 0.3 million or 1 percent from last year. Total foreign production is estimated at 20.6 million tons, up 0.1 million or less than 1 percent from last month, but down 0.5 million or 3 percent from last year. Country highlights are as follows:
  - o South Africa:

Production is estimated at a record 0.7 million tons, up 0.2 million or 40 percent from last month and up 35 percent from last year. The combination of a record 575,000 hectares and timely rains in January and February is expected to boost production to a new high.

- \* Rapeseed: World production for 1990/91 is forecast at a record 24.9 million tons, up 0.3 million or 1 percent from last month and up 3.0 million or 14 percent from last year. Country highlights are as follows:
  - o China

Production is estimated at a record 6.9 million tons, up 0.3 million or 5 percent from last month and up 27 percent from last year. The new estimate is based on official Chinese Government statistics. Production increased significantly in 1990 due to record planted area and excellent yields.

- \* Flaxseed: World production for 1990/91 is forecast at 2.3 million tons, unchanged from last month, but up 0.5 million or 26 percent from last year. While production by the United States is small, this year's output is expected to increase by 213 percent over last year, to 97,000 tons. Total foreign production is pegged at 2.2 million tons, unchanged from last month, but up 0.4 million or 23 percent from last year. There were no changes this month.
- \* Copra: World production for 1990/91 is forecast at 4.9 million tons, up marginally from last month and up 0.1 million or 3 percent over last year. Copra production reached a record 5.3 million in 1985/86. There were no significant country changes this month.
- \* Palm Kernels: World production for 1990/91 is forecast at a record 3.4 million tons, down marginally from last month, but up over 2 percent from last year. There were no significant country changes this month.
- \* Palm Oil: World production for 1990/91 is forecast at a record 11.1 million tons, up 79,000 tons or less than 1 percent from last month and up 167,000 tons or over 1 percent from last year. Country highlights are as follows:
  - o Indonesia:

Production is estimated at 2.5 million tons, up 0.1 million or 4 percent from last month and up 9 percent from last year. The U.S. agricultural attache in Jakarta revised the estimates for palm oil output for 1988/89, 1989/90, and 1990/91. Production changes are attributed to the increase of tree plantings over the past several years, especially from private companies.

COTTON: World cotton production in 1990/91 is estimated at 87.6 million bales, up 1.5 million bales or 2 percent from last month and up 7.6 million bales or 10 percent from last year. Foreign production is estimated at 72 million bales, up 1.5 million from last month and up 4.2 million bales or 6 percent from the 1989/90 estimate. Country highlights are as follows:

o United States

Production is estimated at 15.6 million bales, up 3.4 million or 28 percent from last year. There was no change this month.

o China

Production is estimated at 20.5 million bales, up 1.2 million or 6 percent from last month and up 18 percent from last year. The change is based on the latest official estimate from the State Statistical Bureau. Higher cotton prices and generally favorable weather were credited for the increase in production.

### o Pakistan

Production is estimated at a record 7.3 million bales, up 0.3 million or 4 percent from last month, and up 9 percent from last year. Yields were forecast higher due to increased use of fertilizer and excellent harvesting conditions. Pest damage previously reported in Punjab Province has proven insignificant.

TABLE 1

U.S. Crop Acreage, Yield, and Production 1/

	P.	PLANTED AREA	*	HARV	HARVESTED AREA	3EA		YIELD				<b>PRODUCTION</b>	NOLL	
COMMODITY	1988/89	Prel. Proj. 1988/89 1989/90 1990/91	Proj. 1990/91	1988/89		Proj. 1990/91	Prel. 1988/89 1989/90	Prel. 1989/90	1990/91 Proj. Feb. Mar.	1 Proj. Mar.	1988/89	Pret. 1989/90	1990/91 Feb.	1990/91 Proj. Feb. Mar.
	iM	Million Acres		Will	Million Acres	!	Bt	Bushels per Acre-	Acre		2	Million Bushels	shels	
All Wheat	65.5	76.6	77.3	53.2	62.2	69.4	34.1	32.7	39.5	39.5	1,812	2,037	2,739	2,739
Winter	48.8	55.1	57.0	39.8	41.5	20.0	39.5	35.0	40.7	40.7	1,562	1,455	2,033	2,033
Other	16.7	21.5	20.3	13.4	20.7	19.4	18.7	28.1	36.4	36.4	250	585	705	705
Rye	2.4	2.0	1.6	9.0	0.5	0.4	24.7	28.2	27.1	27.1	15	4	10	10
Soybeans	58.8	8.09	57.8	57.4	59.5	56.5	27.0	32.3	34.0	34.0	1,549	1,924	1,922	1,922
Corn	67.7	72.2	74.2	58.3	64.7	67.0	84.6	116.3	118.5	118.5	4,929	7,525	7,933	7,933
Sorghum	10.3	12.6	10.5	9.0	11.1	9.1	63.8	55.4	65.9	62.9	277	615	571	571
Barley	9.8	9.1	8.2	9.7	8.3	7.5	38.0	48.6	55.9	55.9	230	404	419	419
Oats	13.9	12.1	10.4	5.5	6.9	5.9	39.3	54.3	60.1	60.1	218	374	357	357
							Po	Pounds per Acre	Acre		8	-Million CWT	WT	
Rice	2.9	2.7	2.9	2.9	2.7	2.8	5,514	5,749	5,507	5,507	159.9	154.5	154.9	154.9
											W	Million 480-Pound-	-Pound-	:
Ail Cotton	12.5	10.6	12.4	11.9	9.5	11.7	619	614	640	640	15.4	12.2	15.6	15.6

1/ Source: All estimates are provided by the National Agricultural Statistics Service (NASS) of the United States Department of Agriculture, and are published in the Crop Production circular available from NASS.

Production Estimates and Crop Assessment Division, FAS, USDA

**MARCH 1991** 

## World Crop Production Summary

- ₹	Other		17.0	17.4	88.7	78.4	23.8	23.7	201.7	196.9	21.0	22.2		9.6	10.3
her	Turkey		15.0	14.0	10.0	ω ω σ. σ.	0.2	0.2	25.2 19.2	23.1	2.3 2.3	2.7		2.8 0.8	9.0
Selected Other	South		3.5	1.8	13.0	6.5	0.0	0.0	16.6	80 80 60 63	0.8	0.8		0.4 0.3	0.2
Selection	Aus- tralia		14.1	15.7	6.9	<b>60</b> 60	0.6	0.5	21.4	23.0	0.8	0.1		£. 4.	6. 6
	Brazil		5. cs 6. cs	3.2	26.7 22.7	24.9	7.5	6.7	40.0	34.8 8.5.	24.6	19.0		3.0	4.0
South	Argen- tina		8.4	11.2	7.3	9.8	0.3 0.2	0.0 0.3	16.0	21.3	10.7	15.1		0.9	4.1
	Thai-		0.0	0.0	4.4	4.0	14.0	12.0	18.5	16.0	8.0	0.7		0.2	0.5
	Paki- stan		12.7	14.3	2.4	2.9	3.2	3.5	18.2 20.4	20.7	3.2 3.3	3.4		6.5	7.0
G.	Indo- nesia		0.0	0.0	5.2	5.3	27.5 29.1	29.2 29.2	32.7	34.5	2.0	2.1		0.0	0.0
Asia	India		46.2	49.7	31.3	35.0 35.0	70.5	75.0	148.0 162.7	159.6 159.6	19.3	19.5		8.3	00 0
	China	-	85.4 90.8	98.5 86.5	94.2	104.7	118.4	129.5 129.5	298.0 311.5	330.7	30.6	32.2	68	19.1	19.3
	USSR	-Million Metric Tons-	84.4 92.3	108.0	97.5 104.8	114.0	1.9	7.1	183.8 198.8	223.7 223.7	13.3	13.4	Pound Ba	12.7	12.0
	Eastern Europe	Million N	44.8	44.7	61.3	61.4	0.2	0.2	106.3	106.3	5.1	5.2	Million 480-Pound Bales-	0.1	0.1
Епгоре	Oth. W. Europe	ľ	3.8	5.0	11.4	13.3	0.0	0:0	15.2	18.3 5.3	0.6	8.8.	3	0.0	0.0
	EC-12 (		74.7	80.6	88.1	76.8	t. 1.	6. 6.	164.1	159.0 159.1	11.5	12.3		6 6	<del>1.</del> <del>1.</del> <del>1.</del> <del>1.</del> <del>1.</del>
	Mexico		3.2	8. 6. 8. 6.	13.8	16.3	0.0	0.3	17.2	20.4	1.0	6:0		1.4	8.8
North America	Canada Mexico		16.0	31.8	19.7	26.0	0.0	0.0	35.7 48.0	57.8 57.8	6.4 9.9	5.7		0.0	0.0
North /	United C		49.3 55.4	74.5	149.7 221.4	230.6	5.2	4 4 0 0	204.2	310.0	50.3 59.2	80.6		15.4	15.6
	Foreign		451.1	514.5	581.5 582.1	595.3 595.1	325.7	345.0	1,358.4	1,454.8	153.4	156.4		69.3	70.4
	World		500.4	589.0 589.0	731.2 803.5	825.8 825.7	330.9 344.8	349.9	1,562.6 1	1,764.8 1	203.7 213.9	216.9		84.7	86.1
	Commodity		Wheat 1988/89 1989/90 prel.	February March	Coarse Grains 1988/89 1989/90 prel.	February March	Rice (Milled) 1988/89 1989/90	February	Total Grains 1/ 1988/89 1989/90 prel.		Oilseeds 2/ 1988/89 1989/90 prel.	February March	5	1988/89 1989/90 prel.	February March

<sup>1/</sup> Includes total of wheat, coarse grains, and rice (milled) shown above. Estimates of Soviet total grain production, including wheat, coarse grains, rice (rough), minor grains and pulses are 195.1 million tons in 1988/89, 210.9 million in 1989/90, and 235.0 million forecast in 1990/91.

2/ Totals for major regions and countries include the six major oilseeds shown elsewhere in this report, while world and total foreign also include copra and palm kernels for all countries. Note: Entries of 0.0 indicate no reported or insignificant production.

Production Estimates and Crop Assessment Division, FAS, USDA

**MARCH 1991** 

Wheat Area, Yield, and Production
World and Selected Countries and Regions

TABLE 3

		AREA			YIEL	۵_			PRODU	CTION	
COUNTRY/REGION	1988/89	Prel. 1989/90	Proj. 1990/91	1 <b>988/</b> 89	Prel. 1989/90	19 <b>90/</b> 9 Feb.		1988/89	Prel. 1989/90	1990/91 Feb.	Proj. March
	Mill	ion Hecta	res	Ме	tric Tons	Per Hec	tare	1	Million Me	tric Tons	
World	218.0	225.5	230.8	2.30	2.38	2.55	2.55	500.4	536.8	589.0	589.0
United States	21.5	25.2	28.1	2.29	2.20	2.66	2.66	49.3	55.4	74.5	74.5
Total Foreign	196.5	200.3	202.8	2.30	2.40	2.54	2.54	451.1	481.3	514.5	514.5
Maj. Foreign Exporters	42.1	44.2	45.6	2.69	2.87	3.06	3.06	113.1	127.2	139.3	139.3
Argentina	4.7	5.5	5.9	1.79	1.86	1.90	1.90	8.4	10.2	11.2	11.2
Australia	8.9	8.9	9.9	1.58	1.58	1.59	1.59	14.1	14.1	15.7	15.7
Canada	13.0	13.6	14.1	1.23	1.80	2.26	2.26	16.0	24.6	31.8	31.8
EC-12	15.5	16.2	15.7	4.82	4.83	5.12	5.12	74.7	78.3	80.6	80.6
Major Importers	95.9	97.2	98.0	2.39	2.50	2.69	2.68	229.3	242.5	263.1	263.1
Brazil	3.5	3.4	3.3	1.68	1.65	0.97	0.97	5.8	5.6	3.2	3.2
China	28.8	29.8	30.3	2.97	3.04	3.18	3.18	85.4	90.8	96.5	96.5
Eastern Europe	10.7	10.6	10.7	4.17	4.16	4.20	4.17	44.8	44.3	44.7	44.8
Egypt	0.6	0.6	0.7	4.76	5.05	5.71	5.71	2.8	3.2	4.0	4.0
Other N. Africa 1/	4.0	4.7	5.2	1.26	1.13	1.08	1.08	5.0	5.3	5.6	5.6
Japan	0.3	0.3	0.3	3.62	3.47	3.77	3.66	1.0	1.0	1.0	1.0
USSR	48.1	47.7	47.5	1.76	1.94	2.27	2.27	84.4	92.3	108.0	108.0
Other Foreign	58.5	58.9	59.2	1.86	1.89	1.89	1.89	108.6	111.7	112.1	112.0
India	23.1	24.1	23.5	2.00	2.24	2.12	2.12	46.2	54.1	49.7	49.7
Iran	6.6	6.0	6.1	1.11	0.97	1.00	1.00	7.3	5.8	6.1	6.1
Mexico	0.8	1.0	0.9	4.00	4.21	4.59	4.59	3.2	4.0	3.9	3.9
Non-EC W. Europe	0.8	0.8	0.9	4.85	5.19	5.46	5.46	3.8	4.4	5.0	5.0
Pakistan	7.3	7.7	7.8	1.73	1.87	1.84	1.84	12.7	14.4	14.3	14.3
South Africa	2.0	1.8	1.7	1.78	1.11	1.05	1.00	3.5	2.0	1.8	1.7
Turkey	8.8	8.7	8.8	1.71	1.32	1.60	1.60	15.0	11.5	14.0	14.0
Others	9.3	8.8	9.6	1.83	1.76	1.79	1.81	17.0	15.4	17.4	17.4

<sup>1/</sup> Algeria, Libya, Morocco, and Tunisia.

**MARCH 1991** 

TABLE 4
Coarse Grains Area, Yield, and Production
World and Selected Countries and Regions

		AREA			YIELD		3.54	fra	PRODU	ICTION	98-38
COUNTRY/REGION	1988/89	Prel. 1989/90	Proj. 1990/91	1988/89	Prel. 1989/90	1990/91 Feb.	Proj. Mar.	1988/89	Prel. 1989/90	1990/91 Feb.	Proj. Mar.
TOTAL COARSE GRAINS	Milli	on Hecta	res	Met	ric Tons	Per Hect	are	M	lillion Met	ric Tons-	
World 1/	325.9	321.9	321.8	2.24	2.50	2.57	2.57	731.2	803.5	825.8	825.7
United States	32.8	37.0	36.4	4.56	5.98	6.34	6.34	149.7	221.4	230.6	230.6
Total Foreign	293.1	284.9	285.5	1.98	2.04	2.09	2.08	581.5	582.1	595.3	595.1
Maj. Foreign Exporters Argentina Australia Canada South Africa Thailand	20.7 2.9 4.3 7.1 4.6 1.8	21.3 3.1 4.0 8.3 4.4 1.6	20.6 3.4 4.2 8.0 3.4 1.5	2.47 2.49 1.56 2.76 2.86 2.50	2.49 2.65 1.71 2.84 2.32 2.71	2.57 2.90 1.60 3.24 1.88 2.67	2.61 3.07 1.60 3.24 1.88 2.67	51.1 7.3 6.7 19.7 13.0 4.4	53.1 8.3 6.9 23.5 10.1 4.2	53.4 9.8 6.8 26.0 6.8 4.0	53.6 10.4 6.8 26.0 6.5 4.0
Major Importers Eastern Europe EC-12 Other W. Europe Mexico USSR Other Major Import. 2/	106.3 18.2 19.2 3.2 7.5 57.8 0.5	103.7 18.1 18.6 3.1 7.5 56.0 0.4	101.4 17.9 17.7 3.0 8.3 54.0 0.4	2.57 3.37 4.60 3.52 1.85 1.69 3.40	2.73 3.76 4.43 3.97 1.88 1.87 3.35	2.79 3.42 4.35 4.40 1.96 2.11 3.32	2.80 3.43 4.35 4.40 1.96 2.11 3.31	273.5 61.3 88.1 11.4 13.8 97.5 1.5	283.0 68.1 82.3 12.4 14.1 104.8 1.4	283.2 61.4 76.8 13.3 16.3 114.0 1.4	283.5 61.5 76.9 13.3 16.3 114.0 1.4
Other Foreign Brazil China India Indonesia Nigeria Philippines Turkey Others	166.0 13.4 28.3 38.7 2.9 10.1 3.8 4.4 64.6	159.8 12.7 28.5 37.7 2.7 9.9 3.6 4.4 60.3	163.5 13.6 29.2 38.9 2.9 9.7 3.8 4.5 61.0	1.55 2.00 3.33 0.81 1.82 0.84 1.21 2.29 1.18	1.54 1.80 3.32 0.92 1.85 0.82 1.24 1.70 1.15	1.59 1.84 3.59 0.90 1.83 0.78 1.24 1.99 1.12	1.58 1.80 3.59 0.90 1.83 0.78 1.24 1.99	256.9 26.7 94.2 31.3 5.2 8.5 4.5 10.0 76.5	246.1 22.7 94.6 34.6 5.0 8.1 4.5 7.5 69.0	258.7 24.9 104.7 35.0 5.3 7.6 4.7 8.9 67.6	258.0 24.4 104.7 35.0 5.3 7.6 4.7 8.9 67.4
BARLEY											
World	78.2	74.9	74.7	2.15	2.27	2.45	2.43	167.8	169.6	181.4	181.5
United States	3.1	3.4	3.0	2.04	2.62	3.00	3.00	6.3	8.8	9.1	9.1
Total Foreign	75.1	71.5	71.6	2.15	2.25	2.43	2.41	161.5	160.8	172.3	172.4
Australia Canada China Eastern Europe EC-12 Other W. Europe Turkey USSR Others	2.2 4.2 3.7 4.5 12.2 1.7 3.3 29.7 13.5	2.4 4.7 3.3 4.5 11.8 1.5 3.4 27.6 12.5	2.5 4.6 3.3 4.5 11.4 1.5 3.4 26.0 14.4	1.48 2.46 1.67 3.78 4.13 3.28 2.12 1.50 1.28	1.73 2.50 1.74 4.31 3.95 3.87 1.46 1.75 1.16	1.59 2.93 1.73 4.33 4.03 4.26 1.76 2.19 1.05	1.59 2.93 1.73 4.33 4.03 4.26 1.76 2.19 0.99	3.3 10.2 6.2 17.1 50.2 5.7 7.0 44.5 17.3	4.1 11.7 5.7 19.3 46.4 5.9 4.9 48.5 14.5	4.0 13.5 5.7 19.5 46.0 6.2 6.0 57.0 14.4	4.0 13.5 5.7 19.6 46.0 6.2 6.0 57.0 14.3

**FOOTNOTES AT END OF TABLE** 

CONTINUED

**MARCH 1991** 

TABLE 4 (Continued)

### Coarse Grains Area, Yield, and Production World and Selected Countries and Regions

		AREA			YIELD	* 3 *	1	i 8 12"	PRODU	ICTION	4.7
COUNTRY/REGION	1988/89	Prel. 1989/90	Proj. 1990/91	1988/89	Prel. 1989/90	1990/91 Feb.	Proj. Mar.	1988/89	Prel. 1989/90	1990/91 Feb.	Proj. Mar.
CORN	Milli	on Hecta	res	<b>M</b> et	ric Tons	Per Hect	are	M	lillion Met	ric Tons-	
World	125.2	126.2	127.6	3.20	3.67	3.69	3.69	400.8	462.8	470.6	470.7
United States	23.6	26.2	27.1	5.31	7.30	7.44	7.44	125.2	191.2	201.5	201.5
Total Foreign	101.6	100.0	100.5	2.71	2.72	2.68	2.68	275.6	271.7	269.1	269.1
Maj. Foreign Exporters Argentina South Africa Thailand	7.1 1.7 3.8 1.6	6.7 1.7 3.6 1.4	6.1 2.0 2.8 1.3	3.05 2.94 3.28 2.63	2.78 3.06 2.62 2.86	2.70 3.40 2.14 2.85	2.77 3.60 2.14 2.85	21.6 5.0 12.4 4.2	18.6 5.2 9.4 4.0	16.5 6.8 6.0 3.7	16.9 7.2 6.0 3.7
Major Importers Eastern Europe EC-12 Other W. Europe Mexico USSR Other Maj. Import. 2/	22.0 7.1 4.1 0.2 6.0 4.4 0.1	21.2 7.1 3.9 0.2 5.8 4.1 0.1	21.2 6.8 3.4 0.2 6.6 4.0 0.1	3.82 3.78 7.00 8.55 1.68 3.62 4.20	3.95 4.21 6.93 7.68 1.68 3.71 4.19	3.41 3.31 6.26 7.43 1.82 3.50 4.14	3.42 3.33 6.27 7.43 1.82 3.50 4.14	83.9 26.9 28.5 1.9 10.1 16.0 0.4	83.8 29.8 26.8 1.7 9.8 15.3 0.5	72.2 22.6 21.5 1.6 12.0 14.0 0.5	72.3 22.7 21.6 1.6 12.0 14.0 0.5
Other Foreign Brazil Canada China Egypt India Indonesia Philippines Zimbabwe Others	72.6 12.9 1.0 19.7 0.8 5.9 2.9 3.8 1.2 24.4	72.1 12.1 1.0 20.4 0.8 5.9 2.7 3.6 1.2 24.4	73.2 13.0 1.0 21.0 0.8 5.9 2.9 3.8 1.1 23.7	2.34 2.02 5.47 3.93 5.20 1.40 1.82 1.21 1.56 1.52	2.35 1.80 6.36 3.88 5.37 1.61 1.85 1.24 1.69 1.50	2.46 1.85 7.00 4.19 5.41 1.61 1.83 1.24 1.74 1.49	2.46 1.81 7.00 4.19 5.43 1.61 1.83 1.24 1.81 1.49	170.1 26.1 5.4 77.4 4.3 8.2 5.2 4.5 1.9 37.1	169.2 21.8 6.4 78.9 4.5 9.4 5.0 4.5 1.9 36.7	180.4 24.0 7.0 88.0 4.6 9.5 5.3 4.7 2.0 35.3	179.9 23.5 7.0 88.0 4.6 9.5 5.3 4.7 1.9 35.4
<u>SORGHUM</u>											
World	42.3	41.3	40.1	1.30	1.36	1.36	1.36	55.2	56.2	54.6	54.4
United States	3.7	4.5	3.7	4.00	3.48	3.95	3.95	14.6	15.6	14.5	14.5
Total Foreign	38.6	36.8	36.4	1.05	1.10	1.10	1.10	40.5	40.6	40.1	39.9
Argentina Australia China India Mexico Nigeria South Africa Sudan Thailand Others	0.6 0.6 1.8 14.6 1.1 4.4 0.3 5.3 0.2 9.8	0.7 0.4 1.8 14.9 1.3 4.4 0.2 3.1 0.2 9.7	0.7 0.5 1.8 15.0 1.3 4.4 0.1 3.0 0.2 9.4	2.33 1.99 3.14 0.70 2.83 0.80 1.58 0.83 1.35 1.07	2.86 2.27 2.94 0.86 2.88 0.80 1.47 0.52 1.44 1.02	3.00 2.00 3.22 0.83 2.85 0.75 1.65 0.50 1.39 1.01	3.29 2.00 3.22 0.83 2.85 0.75 1.30 0.50 1.39 1.01	1.4 1.3 5.6 10.2 3.1 3.5 0.4 4.4 0.2	2.0 0.9 5.4 12.9 3.8 3.5 0.4 1.6 0.2 9.9	2.1 0.9 5.8 12.5 3.7 3.3 0.5 1.5 0.3 9.5	2.3 0.9 5.8 12.5 3.7 3.3 0.2 1.5 0.3 9.5

FOOTNOTES AT END OF TABLE

**CONTINUED** 

**MARCH 1991** 

TABLE 4 (Continued)

### Coarse Grains Area, Yield, and Production World and Selected Countries and Regions

		AREA		,	YIELO				PRODU	ICTION	
COUNTRY/REGION	1988/89	Prel. 1989/90	Proj. 1990/91	1988/89	Prel. 1989/90	1990/91 Feb.	Proj. Mar.	1988/89	Prel. 1989/90	1990/91 Feb.	Proj. Mar.
OATS	Milli	on Hecta	res	<b>M</b> et	ric Tons	Per Hect	are	N	lillion Met	ric Tons-	
World	22.1	22.7	21.6	1.70	1.84	1.99	1.99	37.5	41.7	42.9	42.9
United States	2.2	2.8	2.4	1.41	1.95	2.16	2.16	3.2	5.4	5.2	5.2
Total Foreign	19.9	19.9	19.2	1.73	1.83	1.96	1.97	34.3	36.3	37.7	37.7
USSR	10.9	10.8	10.5	1.40	1.57	1.67	1.67	15.3	16.8	17.5	17.5
Maj. Foreign Exporters Argentina Australia Canada Sweden	3.5 0.4 1.3 1.4 0.4	3.7 0.4 1.1 1.7 0.4	3.5 0.5 1.2 1.5 0.4	1.91 1.27 1.40 2.18 3.14	1.97 1.44 1.44 2.08 3.54	2.12 1.33 1.42 2.33 4.51	2.12 1.33 1.42 2.33 4.51	6.6 0.5 1.9 3.0 1.3	7.3 0.6 1.6 3.5 1.5	7.4 0.6 1.7 3.5 1.6	7.4 0.6 1.7 3.5 1.6
Other Foreign China Eastern Europe East Germany Poland EC-12 France West Germany Finland Norway Others	5.4 0.6 1.4 0.1 0.9 1.8 0.3 0.6 0.4 0.1 1.2	5.4 0.6 1.4 0.1 0.8 1.7 0.3 0.5 0.4 0.1	5.2 0.6 1.3 0.1 0.7 1.6 0.2 0.5 0.5	2.28 1.19 2.63 3.43 2.61 3.11 3.77 4.23 2.21 3.02 1.09	2.25 1.15 2.67 3.33 2.72 2.78 3.78 3.78 3.24 3.13 1.10	2.45 1.21 2.87 4.14 2.78 3.09 3.80 4.37 3.67 4.58 1.11	2.46 1.21 2.90 4.14 2.78 3.09 3.80 4.37 3.67 4.58 1.11	12.4 0.7 3.7 0.5 2.2 5.5 1.0 2.4 0.9 0.4 1.3	12.2 0.6 3.6 0.5 2.2 4.7 1.0 1.9 1.4 0.4 1.4	12.9 0.7 3.7 0.6 2.1 4.9 0.9 2.1 1.7 0.6 1.4	12.9 0.7 3.7 0.6 2.1 4.8 0.9 2.1 1.7 0.6 1.4
RYE											
World	15.9	16.9	16.8	2.08	2.22	2.31	2.31	33.0	37.6	38.8	38.8
United States	0.2	0.2	0.2	1.55	1.77	1.70	1.70	0.4	0.3	0.3	0.3
Total Foreign	15.6	16.7	16.7	2.09	2.23	2.32	2.32	32.6	37.3	38.6	38.6
USSR	10.1	10.7	10.5	1.83	1.87	2.00	2.00	18.5	20.1	21.0	21.0
Maj. Foreign Exporter Canada	0.3	0.5	0.5	1.04	1.74	1.74	1.74	0.3	0.9	0.9	0.9
Other Foreign Eastern Europe East Germany Poland Czechoslovakia EC-12 Denmark West Germany Others	3.9 0.6 2.9 0.2 0.9 0.1 0.4 0.5	3.9 0.6 2.9 0.2 1.0 0.1 0.4 0.6	4.1 0.6 3.1 0.2 1.0 0.1 0.4 0.6	2.59 2.94 2.52 3.42 3.05 4.52 4.19 2.06	2.99 3.34 2.95 4.05 3.31 4.80 4.69 2.28	2.91 3.19 2.84 4.26 3.46 4.90 4.72 2.51	2.91 3.19 2.84 4.26 3.46 4.90 4.72 2.51	10.0 1.8 7.2 0.5 2.9 0.4 1.6 1.0	11.8 2.1 8.6 0.7 3.2 0.5 1.8 1.3	11.9 2.1 8.7 0.7 3.3 0.5 2.0 1.4	11.9 2.1 8.7 0.7 3.3 0.5 2.0 1.4

<sup>1/</sup> Total of barley, corn, sorghum, oats, and rye shown below, plus millet and mixed grain. 2/ Japan, Republic of Korea, and Taiwan.

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Rice Area, Yield, and Production World and Selected Countries and Regions

	1990/91 Proj. Feb. March	1	9 349.7	9 4.9	344.8	9 23.5	4 8.4	5 3.1	0 12.0	5 38.6	8 1.6	2 29.2	5 0.5		9.1.6	8 282.7		1 18.1	7 8.7	_	_			7 1.7	7 11.7	7 23.9
TION Sasis)		ric Tons	349.9	4.9	345.0	23.9	8.4	3.5	12.0	38.5	1.6	29.2	0.5	5.6	6.1.	282.6	0.5	18.1	6.7	129.5	75.0	9.6	6.1	1.7	11.7	23.7
PRODUCTION (Milled Basis)	Prel. 1989/90	-Million Metric Tons	344.8	5.1	339.7	25.0	8.1	3.2	13.7	38.5	1.4	29.1	0.5	5.9	1.6	276.2	0.7	18.0	5.0	128.1	74.1	9.4	5.8	1.7	12.0	23.5
	1988/89	- N	330.9	5.2	325.7	24.7	7.5	3.2	14.0	36.9	1.3	27.5	0.5	6.1	1.5	264.1	9.0	15.6	7.5	118.4	70.5	9.0	6.0	1.9	10.9	23.8
	Proj. March		67.7	70.0	67.5	63.8	0.09	66.7	0.99	0.99	67.3	0.59	0.09	72.0	65.5	68.2	71.5	66.7	68.0	70.0	66.7	72.8	65.0	65.0	65.0	1.99
RATE	1990/91 Proj. 0 Feb. Marcl	ent—	67.7	70.0	67.6	63.8	0.09	66.7	0.99	0.99	67.3	65.0	0.09	72.0	65.6	68.2	71.5	66.7	68.0	70.0	66.7	72.8	65.0	65.0	65.0	86.2
MILLING RATE	Prel. 1989/90	-In Percent-	67.7	73.0	67.6	64.0	0.09	66.7	0.99	66.0	67.0	65.0	0.09	72.0	65.5	68.2	71.5	66.7	68.0	0.07	66.7	72.8	65.0	65.0	65.0	66.1
	Prel. 1988/89 1989/90		67.7	71.5	67.6	64.1	0.09	66.7	0.99	1.99	67.3	65.0	0.09	72.3	65.4	68.2	71.5	66.7	68.0	70.0	66.7	72.8	65.0	65.0	65.0	66.1
	1000000	1	516.8	7.0	209.7	36.9	14.0	4.7	18.2	58.5	2.3	45.0	6.0	7.8	2.5	414.4	0.7	27.2	8.6	185.0	112.5	13.1	9.4	2.6	18.0	36.1
CTION Basis)	1990/91 Proj. Feb. March	ric Tons-	517.1	7.0	510.0	37.4	14.0	5.3	18.2	58.4	2.3	45.0	6.0	7.8	2.4	414.2	0.7	27.2	8.6	185.0	112.5	13.2	9.4	5.6	18.0	35.8
(Rough Basis)	Prel. 8	illion Metric Tons	509.3	7.0	502.3	39.1	13.5	4.8	20.8	58.3	2.1	44.7	6.0	8.2	2.5	404.9	6.0	27.0	7.4	180.1	111.1	12.9	8.9	2.6	18.4	35.5
	1988/89	7	488.9	7.3	481.7	38.6	12.5	4.8	21.3	55.8	2.0	42.3	8.0	8.4	2.3	387.3	8.0	23.3	11.0	169.1	105.7	12.4	9.5	5.9	16.8	36.0
	£		3.5	6.2	3.5	2.2	2.9	2.3	1.9	4.3	6.3	4.4	1.4	6.3	2.3	3.8	8.1	2.6	2.0	5.7	2.7	6.3	2.7	4.0	3.1	2.7
	1990/91 Proj. Feb. Marc	Hectare	3.5	6.2	3.5	2.2	5.9	2.5	1.9	4.3	6.3	4.4	1.4	6.3	2.4	3.6	8.1	2.6	2.0	5.7	2.7	6.4	2.7	4.0	3.1	2.8
YIELD	Prel.	Metric Tons Per Hectare	3.5	6.4	3.4	2.3	5.9	2.3	2.0	4.2	6.2	4.2	1.4	6.9	2.4	3.5	8.0	2.6	0.1	5.5	2.6	6.2	2.6	3.9	3.1	2.7
	Prel.	Metric	3.4	6.2	3.3	2.3	2.8	2.4	2.1	4.3	5.6	4.3	1.3	9.9	2.3	3.4	8.2	2.3	2.1	5.3	2.5	6.5	2.6	4.3	5.9	2.7
			147.0	7	145.8	16.6	4.9	2.0	9.7	13.7	0.4	10.3	0.7	1.2	1.1	115.5	0.1	10.6	4.8	32.7	42.2	2.1	3.5	0.7	5.9	13.1
AREA	Prel. Proj.	-Million Hectares-	146.7	Ţ	145.6	17.0	4.7	2.1	10.2	13.8	0.3	10.5	9.0	1.3	1.0	114.8	0.1	10.5	4.2	32.7	42.2	2.1	3.4	0.7	6.9	13.0
₹.	9	Million	145.5	1.2	144.3	16.5	4.5	2.0	8.8	13.0	0.3	8.6	9.0	1.3	1.0	114.8	0.1	10.2	5.3	31.9	41.7	2.1	3.5	0.7	5.8	13.5
3.		,	World	United States	Fotal Foreign	Aaj. Foreign Exporters	Burma	Pakistan	Thailand	Major Importers	EC-12	Indonesia	Nigeria	Republic of Korea	Other Maj. Import. 1/	Other Foreign	Australia	Bangladesh	Brazil	China	India	Japan	Philippines	USSR	Vietnam	Others

1/ Hong Kong, Iran, Iraq, Ivory Coast, and Saudi Arabia.

Production Estimates and Crop Assessment Division, FAS, USDA

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Oilseeds Area, Yield, and Production
World and Selected Countries and Regions

		AREA			YIELD				PRODU	CTION	
COUNTRY/REGION		Prel.	Proj.		Prel.	1990/91	Proj.		Prel.	1990/91	Proi.
	1988/89	1989/90		1988/89	1989/90	Feb.	Mar.	1988/89	1989/90	Feb.	Mar
	Milli	on <b>Hecta</b>	res	Met	ric Tons P	er Hectar	<b>0</b>	М	illion Met	ric Tons-	
SOYBEANS											
World	55.87	58.03	54.77	1.71	1.84	1.92	1.91	95.55	106.78	105.07	104.53
United States	23.22	24.09	22.87	1.82	2.17	2.29	2.29	42.15	52.35	52.3 <b>0</b>	52.30
Total Foreign	32.65	33.94	31.90	1.64	1.60	1.65	1.64	53.40	54.43	52.77	52.23
Maj. Foreign Exporters	16.17	16.35	14.80	1.84	1.88	1.88	1.84	29.70	30.75	27.80	27.30
Argentina	4.00	4.95	4.90	1.63	2.17	2.10	2.10	6.50	10.75	10.30	10.30
Brazil	12.17	11.40	9.90	1.91	1.75	1.77	1.72	23.20	20.00	17.50	17.00
Other Foreign	16.48	17.59	17.10	1.44	1.35	1.46	1.46	23.70	23.68	24.97	24.93
Canada	0.53	0.54	0.50	2.16	2.26	2.63	2.63	1.15	1.22	1.33	1.33
China	8.12	8.06	7.63	1.43	1.27	1.51	1.51	11.65	10.23	11.50	11.50
Eastern Europe	0.56	0.54	0.54	1.20	1.51	1.31	1.31	0.67	0.82	0.71	0.7
EC-12	0.53	0.61	0.66	3.10	3.19	2.82	2.82	1.66	1.95	1.85	1.8
India	1.73	2.13	2.20	0.89	0.80	0.95	0.95	1.55	1.72	2.10	2.1
Indonesia	1.18	1.15	1.25	1.02	0.96	0.96	0.96	1.20	1.10	1.20	1.2
Paraguay	0.85	0.98	0.98	1.90	1.53	1.63	1.63	1.62	1.50	1.60	1.6
USSR	0.76	0.83	0.84	1.16	1.15	1.10	1.10	0.88	0.96	0.92	0.9
Others	2.21	2.74	2.50	1.51	1.53	1.51	1.48	3.33	4.19	3.76	3.7
COTTONSEED											
World	33.76	32.39	33.92	0.98	0.97	0.99	1.01	32.96	31.35	33.67	34.14
United States	4.84	3.86	4.74	1.14	1.10	1.17	1.17	5.50	4.24	5.52	5.5
Total Foreign	28.92	28.53	29.18	0.95	0.95	0.96	0.98	27.46	27.10	28.15	28.6
China	5.53	5.20	5.50	1.27	1.24	1.30	1.38	7.05	6.46	7.14	7.5
India	7.34	7.33	7.70	0.49	0.62	0.55	0.55	3.60	4.54	4.27	4.2
Pakistan	2.51	2.60	2.74	1.14	1.12	1.12	1.16	2.85	2.91	3.06	3.1
USSR	3.43	3.34	3.15	1.61	1.59	1.67	1.67	5.54	5.32	5.25	5.2
Others	10.11	10.06	10.09	0.83	0.78	0.83	0.83	8.42	7.87	8.43	8.3
<u>PEANUTS</u>											
World	19.81	19.65	19.45	1.17	1.11	1.10	1.10	23.18	21.90	21.42	21.4
United States	0.66	0.67	0.73	2.74	2.72	2.24	2.24	1.81	1.81	1.63	1.6
Total Foreign	19.15	18.98	18.72	1.12	1.06	1.06	1.06	21.37	20.09	19.79	19.7
Argentina	0.15	0.18	0.19	1.62	2.06	2.32	2.32	0.24	0.37	0.43	0.4
China	2.91	2.96	3.05	1.95	1.79	1.90	1.90	5.69	5.30	5.80	5.8
India	8.53	8.71	8.10	1.06	0.93	0.90	0.90	9.00	8.09	7.30	7.3
	0.90	0.78	0.92	0.76	1.04	0.73	0.73	0.69	0.82	0.67	0.6
Senegal South Africa	0.90	0.78	0.92	1.07	1.35	1.25	1.40	0.16	0.12	0.10	0.1
South Africa			0.09	0.78	0.73	0.60	0.60	0.45	0.40	0.33	0.3
Sudan	0.58	0.55		0.78	0.73	0.88	0.88	5.13	5.00	5.17	5.1
Others	5.92	5.72	5.85	0.07	0.07	0.00	0.00	0.10	0.00	0.17	J. 1

CONTINUED

### TABLE 6 (Continued)

### Oilseeds Area, Yield, and Production World and Selected Countries and Regions

		AREA			YIELD	The sections	and the season	**************************************	PRODU	CTION	86 1
COUNTRY/REGION		Prel.	Proj.		Prel.	1990/91		- 135e.e	Prel.	1990/9	1 Proj.
	1988/89	1989/90	1990/91	1988/89	1989/90	Feb.	Mar.		1989/90	Feb.	Mar.
<u>SUNFLOWERSEED</u>	Mill	ion Hecta	res	Met	ric Tons P	er Hectar	9	N	lillion Met	ric Tons-	
World	14.95	15.94	16.15	1.36	1.38	1.33	1.34	20.37	21.98	21.55	21.67
United States	0.78	0.72	0.75	1.05	1.10	1.38	1.38	0.81	0.80	1.03	1.03
Total Foreign Argentina China	14.18 2.20 0.83	15.22 2.80 0.73	15.40 2.40 0.83	1.38 1.45 1.42	1.39 1.36 1.34	1.33 1.42 1.45	1.34 1.42 1.45	19.56 3.20 1.18	21.18 3.80 0.98	20.51 3.40 1.20	20.64 3.40 1.20
EC-12 East Europe USSR	2.16 1.31 4.28	2.11 1.29 4.46	2.55 1.29 4.62	1.84 1.62 1.45	1.66 1.87 1.59	1.60 1.69 1.41	1.60 1.69 1.41	3.99 2.13 6.20	3.50 2.42 7.10	4.08 2.18 6.50	4.08 2.18 6.50
Others  RAPESEED	3.39	3.83	3.71	0.84	0.88	0.85	0.88	2.87	3.39	3.15	3.28
World	17.85	17.18	17.88	1.27	1.27	1.38	1.39	22.71	21.89	24.61	24.93
Total Foreign Canada China EC-12 East Europe India Others	17.85 3.67 4.94 1.84 0.88 4.83 1.69	17.18 2.90 4.99 1.66 1.00 4.99 1.63	17.88 2.63 5.30 1.97 0.94 5.20 1.85	1.27 1.17 1.02 2.81 2.51 0.91 0.95	1.27 1.07 1.09 2.96 2.64 0.83 1.02	1.38 1.26 1.25 2.92 2.38 0.92 1.03	1.39 1.26 1.31 2.92 2.38 0.92 1.03	22.71 4.31 5.04 5.17 2.20 4.38 1.61	21.89 3.10 5.44 4.92 2.64 4.12 1.67	24.61 3.33 6.60 5.72 2.25 4.80 1.91	24.93 3.33 6.93 5.73 2.25 4.80 1.90
FLAXSEED											
World	3.70	3.65	3.76	0.45	0.51	0.62	0.62	1.67	1.85	2.33	2.33
United States	0.09	0.07	0.10	0.45	0.47	0.95	0.95	0.04	0.03	0.10	0.10
Total Foreign Argentina Canada India USSR Others	3.61 0.54 0.50 1.20 1.04 0.33	3.59 0.58 0.60 1.18 0.87 0.36	3.66 0.58 0.73 1.20 0.78 0.37	0.45 0.86 0.74 0.30 0.21 0.66	0.51 0.90 0.83 0.29 0.26 0.66	0.61 0.83 1.29 0.33 0.21 0.68	0.61 0.83 1.29 0.33 0.21 0.68	1.63 0.46 0.37 0.36 0.22 0.22	1.82 0.52 0.50 0.34 0.23 0.24	2.23 0.48 0.94 0.40 0.17 0.25	2.23 0.48 0.94 0.40 0.17 0.25
MAJOR OILSEEDS	145.93	146.83	145.92	1.35	1.40	1.43	1.43	196.44	205.75	208.64	209.00
United States Total Foreign	29.58 116.35	29.41 117.42	29.18 116.74	1.70 1.26	2.01 1.25	2.08 1.27	2.08	50.31 146.13	59.24 146.52	60.59 148.06	60.59 148.42
COPRA								• 4.28	4.77	4.88	4.89
PALM KERNEL								2.94	3.34	3.43	3.42
TOTAL OILSEEDS								203.67	213.86	216.95	217.31
PALM OIL 1/								9.57	10.92	11.01	11.09

<sup>1/</sup> Not included in total oilseeds.

Cotton Area, Yield, and Production
World and Selected Countries and Regions

TABLE 7

	AREA			YIELD				PRODUCTION			
COUNTRY/REGION		Prel.	Proj.	49. 31.	Prel:	1990/91	Proj.	4.41	Prel.	1990/91	Proj.
	1988/89	1989/90	1990/91	1988/89	1989/90	Feb.	Mar.	1988/89	1989/90	Feb.	Mar.
	<b>M</b> illi	on Hecta	res	Kilo	ograms P	er Hecta	ıre	<b>M</b> illi	on 480-l	Pound B	ales
World	33.8	32.0	33.6	545	545	558	567	84.7	79.9	86.1	87.6
United States	4.8	3.9	4.7	694	688	718	718	15.4	12.2	15.6	15.6
Total Foreign	29.0	28.1	28.9	521	525	531	543	69.3	67.7	70.4	72.0
Maj. Foreign Exporters	13.5	13.1	13.2	749	728	755	779	46.5	43.7	45.8	47.3
Australia	0.2	0.2	0.3	1,475	1,406	1290	1,290	1.3	1.4	1.6	1.6
Central America 1/	0.1	0.1	0.1	830	834	804	807	0.4	0.3	0.3	0.3
China	5.5	5.2	5.5	751	728	764	812	19.1	17.4	19.3	20.5
Egypt	0.4	0.4	0.4	718	683	719	719	1.4	1.3	1.4	1.4
Mexico	0.3	0.2	0.2	1,209	891	913	913	1.4	0.8	0.8	0.8
Pakistan	2.5	2.6	2.7	568	560	556	580	6.5	6.7	7.0	7.3
Sudan	0.3	0.3	0.2	443	454	499	499	0.6	0.6	0.4	0.4
Turkey	0.7	0.7	0.7	882	851	976	976	3.0	2.8	3.0	3.0
USSR	3.4	3.3	3.2	805	805	827	827	12.7	12.3	12.0	12.0
Major Importers 2/	0.4	0.4	0.4	837	889	853	853	1.7	1.5	1.5	1.5
Other Foreign	15.0	14.7	15.3	306	335	330	330	21.1	22.5	23.1	23.1
Argentina	0.5	0.6	0.6	389	486	459	459	0.9	1.3	1.4	1.4
Brazil	2.4	2.2	2.1	311	300	. 353	353	3.4	3.0	3.4	3.4
India	7.3	7.3	7.7	245	310	277	277	8.3	10.4	9.8	9.8
Syria	0.2	0.2	0.2	667	930	907	907	0.5	0.7	0.7	0.7
Others	4.6	4.4	4.7	377	352	369	369	8.1	7.1	7.9	7.9

<sup>1/</sup> Nicaragua, Guatemala, El Salvador, Honduras, and Costa Rica.

**MARCH 1991** 

<sup>2/</sup> Western Europe, Eastern Europe, Japan, Hong Kong, Republic of Korea, and Taiwan.

The table below presents a 9-year record of the difference between the March projections and the final estimates. Using world wheat production as an example, changes between the March projection and the final estimate have averaged 3.2 million tons (0.7 percent) and ranged from -8.0 to 6.9 million tons. The March projection has been below the final 6 times and above the final 3 times.

### RELIABILITY OF PRODUCTION PROJECTIONS

COMMODITY AND	PROJECTIO	ON AND FINA	L ESTIMATES	S, 1981/82 -	1989/90 1/	
REGION	Differ	ence	Lowest	Highest	Below	Above
	Average	Average	Differ	rence	Final	Final
	Percent	Mill	ion Metric Tol	ns	Number	of Years 2/
WHEAT						
World	0.7	3.2	-8.0	6.9	6	3
U.S.	0.1	0.0	-0.1	0.1	4	1
Foreign	0.8	3.2	-8.0	6.9	6	3
COARSE GRAINS 3/						
World	0.6	4.9	-10.9	4.1	6	3
U.S.	0.1	0.2	-0.2	1.3	5	1
Foreign	0.9	5.1	-10.9	4.2	6	3
RICE (Milled)						
World	1.5	4.6	-10.0	2.3	8	1
U.S.	1.2	0.1	-0.2	0.1	3	1
Foreign	1.5	4.6	-9.9	2.3	8	1
SOYBEANS						
World	1.6	1.5	-2.2	1.4	5	4
U.S.	1.3	0.7	-1.1	1.8	3	5
Foreign	2.6	1.1	-2.2	1.2	7	2
		  Millio	   n 480-lb. Bai	les		
COTTON						
World	1.1	0.9	-2.9	3.0	4	4
U.S.	0.8	0.1	-0.1	0.3	2	6
Foreign	1.4	0.9	-3.2	2.9	4	5
UNITED STATES		A	l Million Bushels	s		
CORN	0.1	6	-8	38	2	1
SORGHUM	0.1	1	0	4	0	2
BARLEY	0.5	2	-3	11	5	1
OATS	0.1	0	-2	0	2	0

<sup>1/</sup> The final estimate for 1981/82-1989/90 is defined as the first November estimate following the marketing year.

March 1991

<sup>2/</sup> May not total nine if projection was the same as the final.

<sup>3/</sup> Includes corn, sorghum, barley, oats, rye, millet, and mixed grain.

# WORLD AGRICULTURAL WEATHER HIGHLIGHTS

### **MARCH 11, 1991**

## NOAA/USDA JOINT AGRICULTURAL WEATHER FACILITY



parts of the Delta and southeastern United States. west coast States, but caused some flooding in Late February and early March precipitation Great Plains, but dryness continued across belt. Moisture continues abundant across the central Plains Hard Red Winter wheat provided badly needed moisture to the Snow covere increased in the northern much of the Corn Belt.

summer crop areas but adequate moisture supplies areas, maintaining favorable moisture conditions. In Argentina, rainfall diminishes over the primary scattered showers covered northern soybean Rio Grande do Sul. Further north, periodic In south-central Brazil, persistent dryness severely stresses corn and soybeans in promote crop development. SOUTH AMERICA

NORTHWESTERN AFRICA

Widespread showers benefit vegetative

Showers and seasonable temperatures continue of dry, seasonably warm weather the past few weeks benefit crop growth slowed late-planted, immature corn. Periods until late February, benefiting by the recent wet weather. winter grains in Morocco, Algeria, **SOUTH AFRICA** and Tunisia.

the Yangtze Valley southward improve conditions wheat that broke dormancy earlier than usual. In southern China, beneficial showers from for spring plantings. However, more rain likely causes only minor damage to winter a cold weather outbreak in late February is needed along the southern coast for March rice planting. In the north,

( )

Overwintering conditions continue favorable.

**EASTERN ASIA** 

Winter grains remain dormant.

**WESTERN USSR** 

Malaysia's palm oil regions. Much needed Continuing, seasonable showers maintain rain covers the eastern Philippines but comes to late for maturing fall grains. However, rainfall is sporadic over favorable conditions for Java rice.

SOUTHEAST ASIA

- Colore

half of the country, including Queensland's generally adequate for immature summer Above normal rainfall soaks the northern east coast sugarcane areas. Moisture is AUSTRALIA

crops.

Subscription information may be obtained by calling (202) 447-7917 (More details are available in the Weekly Weather and Crop Bulletin.

### WEATHER BRIEFS

### CHINA: WINTER WEATHER SUMMARY

The winter of 1990/1991 with a few minor exceptions has been favorable in China. The winter wheat region of north China has seen unseasonably mild temperatures for much of the growing season, with seasonably light precipitation. The only cold outbreaks occurred in mid-to-late February, and had little serious impact on crops. In some areas, this cold weather reversed the trend for early breaking of winter grain dormancy and burned back some new growth where dormancy had already been broken. Mild temperatures and well-above-normal precipitation are providing very favorable planting conditions in central China and most of southern China. Precipitation continues to be below normal in the southern coastal rice areas. More rain is needed there for planting early double-crop rice, usually under way in early March.

### PHILIPPINES: SEASONAL RAINS WELL BELOW NORMAL

For the second year, the rainy season for the fall-planted crops has failed to develop normally over the eastern Philippines. Production of fall-planted grains has been hurt and rains at this time will not benefit these crops, as harvesting normally begins in mid-February. Heavy rains during February 17 - March 2, 1991, have been of some benefit from southern Luzon to northern Mindanao, improving irrigation reserves for the upcoming main-season crops. However, due to much-below-normal seasonal accumulation, a timely start to the main rainy season is critical for planting of main-season crops.

### EUROPE: DRYNESS CONTINUES IN FRANCE AND ROMANIA

Precipitation during winter 1990/1991 continued to be below normal for most of France and Romania, a trend that has continued since summer 1990. During February and early March, 1991, precipitation has been more frequent and widespread in Mediterranean southern Europe than in the north. Precipitation was widespread across Europe during the week of February 10 - 16, 1991, but Romania and most of France received only about 10 millimeters. Significant precipitation will be needed as winter crops break dormancy and summer crop planting begins, or production will again be adversely affected.

### PRODUCTION BRIEFS

### ARGENTINA: FARM POLICY FRUSTRATION

Frustration with current agricultural policy is mounting among Argentine farmers, according to the U.S. agricultural counselor in Buenos Aires. Farmers face rapid changes in macro-economic policies, exchange rates, and export taxes, combined with a long-term, severe decapitalization of agricultural investment. Traditionally, farmers since World War II have periodically cut back farm output to protest farm policies they did not like, even if it meant economic losses for themselves. Some have recently threatened to strike unless changes are made in current policy. However, rural leaders disagree among themselves over which policies they favor. Small farmers want to return to traditional populist economic policies, with the government providing subsidized credit and low-cost inputs. Large farmers want market forces to determine supply and demand. In response, Argentine government officials have pledged different measures to each group.

Argentina's president recently offered the elimination of export taxes, which would help large farmers, and special credit lines at 16-percent interest to help small farmers. In return, rural associations are expected to pledge their members will pay taxes, especially property and value-added taxes. The president's offer has prompted debate among farm groups because both measures would tend to boost agricultural production. Export taxes range between 5 and 16 percent on most farm commodities, and they reportedly erode profits and capital. Credit is unreliable and expensive because of severe inflation. Farm leaders claim that raising tax revenue has become the government's top priority after a run on the austral (Argentine currency) early this year.

### BURMA: RICE PRODUCTION UPDATE

The 1990/91 second season Burmese rice crop has been harvested and, according to the U.S. agricultural attache in Bangkok, total rice production is estimated at 8.4 million tons (milled-basis). On a recent trip to Burma's Pegu division (state), the attache observed that excessive rains during grain fill had depressed yields. However, Burma is still expected to have a sizable crop, nearly 4 percent above last year. The increase is partially attributed to the government offering farmers a competitive domestic paddy price this year.

Burmese officials stated that farmers were encouraged to produce more second crop rice, but producers expressed concern that the harvest will be hurt by the beginning of the rainy season. Officials also mentioned their desire to produce and export more high quality rice, including fragrant rice. In anticipation of increased production, Burma reportedly plans to renovate 120 private mills and construct new ones.

### CANADA: FORESTRY SITUATION

The Canadian forest products industry is in a decline. Reduced economic activity and significant reductions in estimated housing starts in both the United States and Canada are expected to lower the 1991 harvest in all regions of Canada. Roundwood production during 1991 is forecast at 175.0 million cubic meters (CUM), 2 percent less than the 1990 timber cut and 12 percent below the record 200.0 million CUM harvested in 1987. Current assessments indicate that the continuing slowdown in the Canadian building trades industry, coupled with weak demand on world markets, will significantly reduce Canada's production of softwood and hardwood logs, as well as the volume of lumber and panel products processed from these logs.

### PRODUCTION OF SELECTED PRODUCTS (1,000 Cubic Meters)

	<u>1989</u>	<u>1990</u>	1991 1/
Roundwood	186,600	178,400	175,000
Softwood Logs	130,000	124,000	121,000
Temperate Hardwood Logs	5,000	4,900	4,600
Poles, Piles, Posts, Pitprops	2,600	2,500	2,400
Softwood Lumber	57,980	55,000	53,500
Temperate Hardwood Lumber	1,245	1,200	1,100
Softwood Veneer	600	575	550
Temperate Hardwood Veneer	725	750	700
Softwood Plywood	2,000	1,930	1,825
Temperate Hardwood Plywood	165	140	130
Fiberboard	826	815	780
Particleboard	3,447	3,300	3,100

1/ Preliminary.

### CANADA: FIELD CROP AREA AND OUTPUT FORECAST FOR 1991/92

According to Agriculture Canada, wheat production in 1991/92 is forecast to be 25 percent lower than last year's record crop. Barley, corn, oats, and flaxseed production are also seen lower for next year. Canola output is forecast higher for 1991/92, while soybean production is seen unchanged. It should be noted that these forecasts were made before the Canadian government proposed a new farm support system composed of a Gross Revenue Insurance Plan and a Net Income Stabilization Account program. However, neither measure has yet been enacted by Parliament. The first USDA forecast of 1991/92 Canadian production, supply, and demand for grains will be released in May and for oilseeds in July.

Year	Wheat	Barley	Corn	<u>Oats</u>	Canola	Soybean	Flaxseed
1991/92 1/ 1990/91 1989/90	23.9 31.8 24.6	12.6 13.5 11.7	Milli 6.6 7.0 6.4	3.1 3.5 3.5	ric Tons 3.9 3.3 3.1	1.3 1.3 1.2	0.7 0.9 0.5
1991/92 1/ 1990/91 1989/90	12.8 14.1 13.6	4.7 4.6 4.7	1.1 1.0 1.0	1.5 1.5 1.5 1.7	3.2 2.6 2.9	0.5 0.5 0.5	0.6 0.7 0.6

<sup>1/</sup> Agriculture Canada forecast

### CHINA: PRODUCTION ESTIMATES FOR 1990 REPORTED

On February 22, 1991, the Chinese State Statistical Bureau (SSB) released its first agricultural production estimates for 1990. Total agricultural output value stood at 738.2 billion Yuan, up 6.9 percent from last year. Grain production reached a record 435 million tons, surpassing last year's crop by 6.7 percent, while the output of most other crop and livestock products also rose significantly. The gains were attributed to favorable weather and recent efforts by all levels of government to promote agriculture through higher commodity prices, greater investment in science and technology, expansion of irrigated area, and an increase in agricultural inputs.

SSB 1990 Preliminary Statistics--Selected Commodities

Commodity	1990 Output (1000 MM)	Percent Change 1/
Grains 2/	435,000	18.1
Oilseeds 3/	16,150	24.7
Rapeseed	6,930	27.5
Fruits	18,760	2.4
Pork, Beef,	·	
Mutton 4/	25,040	7.7
Aquatic	·	
products	12,180	5.7

<sup>1/</sup> As reported by SSB.

<sup>2/</sup> Total grains include soybeans, pulses and tubers.

<sup>3/</sup> Excludes soybeans but includes miscellaneous minor oilseeds.

<sup>4/</sup> Includes goat meat.

### COTE D'IVOIRE: FOOD CROP PRODUCTION ENCOURAGED

Cocoa, coffee, cotton, and rubber are important export crops which generate most of Cote d' Ivoire's export earnings. However, foreign exchange has become scarce because of falling world market prices for these commodities. A severe economic recession has led to an inability to meet internal and external debt obligations and to pay for badly needed food imports. The country continues to import such foods as rice and corn to supplement local production. The Ivorian government, which is actively involved in all facets of the agriculture sector, has begun to focus policies at encouraging food self-sufficiency. Policy goals include: increasing food crops (especially rice) production; developing rural areas; modernizing agricultural activities; assuring favorable guaranteed producer prices; and promoting investment in agriculture. Some of the program's effects may already be evident. Production of paddy rice reached 728,000 tons in 1989/90, up from 691,000 in 1988/89. Favorable weather, area expansion, and increased use of improved seed all contributed to the higher production. However, the 1990/91 rice crop increased only marginally, to 730,000 tons, due to the late arrival of the rainy season, which limited gains. Corn production was a record 520,000 tons in 1989/90, but fell to 460,000 tons in 1990/91 due to the early season dryness.

### FRANCE: SUPERIOR QUALITY WHEAT AREA INCREASES

Harvested area of French wheat showed a shift away from feed wheat in 1990/91 (from 28 percent in 1989/90 to 23 percent in 1990/91). Superior quality wheat rose from 27 percent of total plantings in 1989/90 to 31 percent in 1990/91. A new high-yielding superior quality wheat called "sissons" is the primary reason for the shift from feed varieties to superior quality varieties, especially in the Loire Valley. In 1989/90 the "sissons" variety represented only 0.5 percent of total wheat area, but by 1990/91, that percentage had climbed to 6 percent. The U.S. agricultural counselor in Paris estimated that the area planted last fall (for 1991/92 harvest) to superior quality bread-making wheats increased again due to additional area planted to the "sissons" variety.

The French milling industry complained that only 25 percent of the 1990/91 harvest met their variety standards even though the French statistical agency, ONIC, described wheat quality as satisfactory. The most widely grown standard quality wheat variety in France, "thesee," accounted for 22 percent of the 1990/91 harvested area, up 4 percent from last year. Many French millers refused "thesee" this year because of its poor bread-making quality.

### GREECE: SNOW AND COLD WEATHER DAMAGE AGRICULTURE

Greek agricultural production was adversely affected by heavy snow and unusually cold temperatures in late January and early February 1991, with the heaviest damage in the northeastern region of the country. Temperatures were reported as low as minus 13 degrees Celsius (8 degrees Fahrenheit). Official reports of damage include: about 40,000 tons of unpicked citrus that was frozen; up to 60 percent of the open air vegetable crop (mainly artichokes and cabbages) lost in some regions although for the country as a whole the percentage was much smaller; up to a million poultry deaths; and several large greenhouse complexes lost. Damage to fruit trees was not assessed, and there were no reports of damage to the winter wheat crop.

### PERU: MORE POULTRY PRODUCED IN 1990

Output of poultry meat in Peru totaled 200,000 tons in 1990 up from 185,000 in 1989 but still well below the 250,000 produced in 1988 according to the U.S. agricultural attache in Lima. Continued weakness in the national economy is limiting recovery of demand for poultry meat. Preliminary forecasts for 1991 indicate a small decline in production is likely, as weak demand limits opportunities for profitable production.

### SOVIET UNION: HARD CURRENCY GRAIN PURCHASE PROGRAM ENDS

The 2-year-old program through which Soviet producers were paid hard currency for above-quota sales of grain to the state, has come to an end. During the first year, the program resulted in only 267,000 tons of additional sales, rather than the expected 10 million; the amount increased to 752,000 tons during the second year. The program was originally announced in August 1989 in response to criticism that the government was spending enormous amounts of hard currency for grain imports rather than for domestic production. The hard currency earned by the farmers could be used (according to the plan) to purchase foreign agricultural machinery or consumer goods not available for rubles. One of the greatest problems with the program was the low prices actually received by the domestic producers.

### TAIWAN: MAJOR CHANGES IN AGRICULTURAL POLICY PROPOSED

Taiwan's Council of Agriculture has drafted an Agriculture Adjustment Plan (1991-1997) which will be considered by the Legislative Yuan for implementation in July 1991. This plan would represent a major change from the past policy of encouraging and stimulating agricultural production to one of recognizing the agricultural sector's limitations while ensuring the security of the domestic food supply. New targets call for zero aggregate growth for Taiwan's agriculture and would result in a decline in agriculture as a percent of GNP. Key features of the plan include land consolidation, stronger conservation and pollution controls, greater reliance on market signals, the establishment of agricultural specialization zones, replacement of agricultural subsidies with direct income payments to farmers, reduced emphasis on rice, sugarcane, and hog production, and possibly a pension program for the aging agricultural labor force. The total cost of the adjustment plan is projected at US\$16 billion over 6 years, with a majority of the money targeted for marketing and environmental efforts. Some resistance is expected to many of these changes.

### THAILAND: MILK PRODUCTION UP IN 1990

Thailand's milk output in 1990 is estimated at 135,000 tons, up from 118,000 in 1989 according to the U.S. agricultural attache in Bangkok. Growth of 10 to 15 percent is expected again this year as producers respond to strong demand and governmental incentives. One of the primary ways the government encourages increased milk production is to provide low-interest loans for financing cattle imports. About 3,000 dairy animals were imported in 1990.

### WORLD: SUGAR PRODUCTION REVISED UPWARD

World 1990/91 centrifugal sugar production is estimated at 110.7 million tons (raw basis), 767,000 more than the January 1991 forecast and 2.3 million above the 108.4 million ton outturn in 1989/90. Among the 1990/91 crop increases since January are: 400,000 tons for Brazil to 7.9 million; 350,000 tons for Turkey to 1.9 million; 313,000 tons for the United States to 6.2 million; and 150,000 tons for Iran to 650,000. Sugar production in the European Community (excluding the former East Germany) for 1990/91 is estimated at 16.0 million tons up 65,000 since the January report. Increases of 100,000 tons for France to 4.7 million and 50,000 tons for Denmark to 590,000 were partially offset by decreases in other member countries. Elsewhere, the most significant single country decrease, since January 1991, occurred in Thailand, down 400,000 tons to 3.3 million. Sugar outturn in the Soviet Union for 1990/91 was revised downward 150,000 tons last month (see WAP-2-91) to 9.1 million.

### WORLD CENTRIFUGAL SUGAR PRODUCTION \*

1987/88 - 1990/91

	1987/88	1988/89	1989/90	1990/91 JAN.	1990/91 MAR.	
		(1,000 M	etric Tons	)		
NORTH AMERICA SOUTH AMERICA CENTRAL AMERICA CARIBBEAN EC OTHER WEST EUROPE EAST EUROPE SOVIET UNION NORTH AFRICA OTHER AFRICA MIDDLE EAST	10,418 13,270 1,687 8,803 14,164 847 5,417 9,560 1,794 5,906 2,408	9,871 13,720 1,645 9,436 14,768 1,037 4,800 8,900 1,873 5,919 2,086	9,218 12,702 1,943 9,209 15,286 1,179 5,635 9,560 1,883 5,911 2,037	9,235 12,576 2,125 8,701 15,977 1,220 5,515 9,300 1,931 5,900 2,106	9,548 12,971 2,115 8,695 16,042 1,220 5,665 9,150 1,931 5,900 2,606	
OTHER ASIA OCEANIA	25,139 3,954	27,394 4,073	29,554 4,288	31,267 4,080	30,817 4,040	
WORLD	103,367	105,522	108,405	109,933	110,700	

<sup>\*</sup> This update of the 1990/91 USDA world sugar production forecast incorporates revisions for only selected countries.

### FEATURE COMMODITY ARTICLES

### WORLD COCOA PRODUCTION

World cocoa bean production for 1990/91 (October-September) is estimated at 2.4 million tons, 1 percent above the October 1990 forecast, and 1 percent more than harvested in 1989/90. In Cote d'Ivoire, the world's largest producer, 1990/91 outturn was revised upward 30,000 tons from the October forecast to 720,000. This is 10,000 tons more than was harvested in 1989/90. World 1990/91 cocoa production is 43 percent above the 1980/81 - 1984/85 average harvest. This increase has taken place in all regions of the world. The most significant expansion has taken place in Asia, where production has more than tripled since the early 1980's. New cocoa tree plantings, coupled with improved varieties, are the major reason for the increased outturn at the world level.

Africa's 1990/91 cocoa output is forecast at 1.3 million tons, up 1 percent from October, but down 2 percent from last year. In Africa, cocoa production for 1990/91 is forecast up 33 percent from the 5-year 1980/81-84/85 average. In Cote d'Ivoire, the world's largest producer, 1990/91 outturn was revised upward 30,000 tons to 720,000 from the October forecast and is 10,000 tons more than was harvested in 1989/90. Abundant and well-distributed rainfall from September 1990 to January 1991 was cited as contributing to the expected Cote d'Ivoire's outturn in 1990/91, though considerably short of the 1988/89 record of nearly 850,000 tons, will produce one and a half times more cocoa than the 5-year average of the early 1980's. In Ghana, the forecast for 1990/91 is 260,000 tons, 4 percent less than the October number and down 12 percent from last season. Poor rainfall patterns and bad weather resulted in many cherelles wilting and dropping early in the season. Rain did not occur in September and October as expected and unseasonable rains in November and December may have come too late to help some cocoa pods. Ghana is producing 31 percent more cocoa than it was at the onset of the 1980's. In Nigeria, the forecast of 150,000 tons is unchanged from the October forecast, but 3 percent less than last year. The late beginning of rainfall was blamed for the decline from a year ago. However, rainfall in November and December was considerably above that of last year. Consequently, it is expected that the mid crop may be higher than normal. Nigeria is one of the few countries to produce less cocoa than at the onset of the 1980's.

South America's 1990/91 cocoa production is forecast at 565,600 tons, 3 percent more than October and 5 percent above last year. This region has shown a 15 percent increase in production over the 5-year 1980/81-84/85 average. The estimate for Brazil, the world's second largest producer, is 4 percent more than the forecast made in October and up 10 percent over last year. Brazil is producing 13 percent more cocoa than it was during the 5-year period of the early 1980's. The main Bahia crop is estimated at 198,000 tons, the Temporao is 156,000 and production in other states is set at 36,000. In Ecuador, the forecast of 90,000 tons is 2 percent more than the October number, but down 10 percent from last year's revised estimate. The upward revision in the 1989/90 crop was due in part to exceptionally good yields from weather that benefited the cocoa crop with timely rains which were interspersed with dry periods which kept fungus infestation low. Ecuador's cocoa production is 10 percent greater than it was at the beginning of the 1980's.

Central America/Caribbean cocoa production for 1990/91 is forecast at 111,000 tons, unchanged from October, but 3 percent less than the 1989/90 forecast. This region has increased cocoa outturn by 15 percent since the 1980/81 - 1984/85 period. Virtually all of the increase since this 5-year period is accounted for by the Dominican Republic, up 30 percent.

Asia/Oceania cocoa production for 1990/91 is unchanged from the October estimate, but forecast to increase 8 percent over last year. The most pronounced increase over the 5-year period of the early 1980's has taken place in this region. Output has expanded more than 3 times, an increase of over 300,000 tons. In Malaysia, the largest producer in this region, the forecast of 265,000 tons is down 4 percent from the October forecast but up 10 percent from last year. This increase from 1989/90 is attributed to additional trees coming into production which will more than offset the negative effects of reduced fertilizer application, especially in Sabah. Malaysia is producing at a level that is 3.6 times the 1980/85 5-year average of 74,000 tons. The Indonesian forecast of 130,000 tons is 8 percent more than both the October and 1989/90 estimate. Indonesia's cocoa bean production has also exploded in recent years due to substantial increases in area planted to high yielding varieties and more trees in production. Efforts to improve the generally low yield and quality of cocoa appear to be succeeding. This country has expanded the fastest of all major producers. It's cocoa outturn is more than six times the 21,000 ton average of the 5-year period 1980/81-84/85.

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### COCOA BEAN PRODUCTION, SELECTED COUNTRIES 1/ (1,000 Metric Tons)

	Average			Forec	ast
		1988/89	1989/90		
		·	·	OCT.	
Costa Rica	3.9	4.1	4.2	4.3	4.3
Cuba	2.1	2.1	2.1	2.1	2.1
Dominican Republic		44.3	57.0	52.0	52.0
Grenada Guatemala	2.3	2.0	2.0	2.0	2.0
Haiti	3.3	3.0	2.0	2.0	2.0
Honduras	0.8	2.1	2.2	2.2	2.2
Jamaica & Dep	2.3	1.5	1.5	2.0	2.0
Mexico	36.4	41.0		39.0	
Nicaragua	0.2	0.2	0.2	0.2	0.2
Panama	0.7	0.5	0.5	0.5	0.5
Trinidad and Tobago		1.4		1.5	1.5
other 2/	0.2			0.1	0.1
NORTH AND CENTRAL	96.1	104.4	114.9	111.0	111.0
AMERICA AND CARIBBEAN					
Bolivia	2.7		2.5	2.5	2 5
Brazil			355.0		2.5 390.0
Colombia	39.4				
Ecuador	82.1	82.0			
Peru	9.3		10.0		
Surinam	0.1	0.1	0.1	0.1	0.1
Venezuela	13.3	11.5	13.0	13.0	13.0
SOUTH AMERICA	492.7	496.4			565.6
Angola Cameroon	0.2	0.2	0.2 117.0		
Comoro Islands	0.1	0.1	0.1	0.1	0.1
Congo	1.8	1.6	1.0		
Cote d' Ivoire 3/		848.9			720.0
Equatorial Guinea	8.6	6.6	7.5	8.0	7.5
Gabon	2.3	1.9	1.8	1.8	1.8
Ghana	199.2	301.0	295.0	270.0	260.0
Liberia	5.6	3.0	3.0	2.0	2.0
Madagascar	2.1	2.8	2.5	2.5	2.5
Nigeria 4/	159.6	160.0	155.0	150.0	150.0
Sao Tome and Principe	4.7	4.3	4.0	4.0	4.0
Sierra Leone	9.7	7.6	8.0	8.0	8.0
Tanzania	1.3	1.9	1.5 9.5	1.5	1.5 9.0
Togo 3/	12.9	10.0	0.3	0.3	0.3
Uganda Zaire	4.7	4.6	5.0	5.0	5.0
AFRICA	971.6				
Fiji	0.2	0.3	0.3	0.3	0.3
India	4.1	6.0		6.0	6.0
Indonesia	21.1	98.0			130.0
Malaysia	73.6	225.0		275.0	265.0
Papua New Guinea	28.7	48.0	40.0	40.0	40.0
Philippines	5.3 0.9	7.8 2.6	9.0 2.7	9.0 3.0	3.0
Solomon Islands Sri Lanka	1.5	1.5	1.5	1.5	1.5
Vanuatu/New Hebrides	0.8	1.4	1.0	1.0	1.0
Western Samoa	1.0	0.5	0.5	0.5	0.5
ASIA AND OCEANIA	137.3	391.1	421.0		456.3
WORLD	1,697.8	2,470.7	2,395.9	2,390.3	2,425.8
	========	========		========	

1/Estimates refer to an October-September crop year. 2/Includes Dominica, St. Lucia, Guadeloupe, and Martinique. 3/ Includes some cocoa marketed from Ghana. 4/ Includes cocoa marketed through Benin.

MARCH 1991 PRODUCTION ESTIMATES AND CROP ASSESSMENT DIVISION FAS, USDA

### WORLD LIVESTOCK AND MEAT PRODUCTION

World red meat production for 1991 is forecast at 120.2 million tons, one percent above 1990. Beef production is forecast at 47.9 million tons, up 2.3 million since September and 0.2 million above 1990. Much of the increase since September is due to a revised data series for Brazil. Pork production is estimated at 66.0 million tons, up 1.8 million since September and 1 million tons above 1990. Sheep and goat meat production is projected at 6.3 million tons, no change from September and 79,000 above the 1990 level. Beginning 1991 cattle numbers are estimated at 1,061 million head, up 17 million from September but 186,000 head below 1990. Again, the major change since September is the revised data series for Brazil. Hog numbers are up 13 million head from September to 779 million and 16 million above 1990. Sheep (including goats in China) are down 41 million head from September to 882 million and 13 million below 1990.

		ed Meat E		<u>on</u>		
	1988	1989	1990	Sept. 1991	Mar. 1991	
Beef and Veal 1/ Pork Sheep and Goat meat	46.9 63.0 5.7	47.6 63.9 6.0	47.7 65.0 6.2	45.6 64.2 6.3	47.9 66.0 6.3	
Total	115.6	117.5	118.9	116.1	120.2	

1/ Historical series for Brazil revised upward.

The 1991 beef and veal production forecast for the United States is about 10.6 million tons, little changed from September. Canadian production for 1991 is forecast below the September estimate, and now shows a small year-over-year decline. Reduced cattle slaughter in 1990 and 1991 reflect the decline in the beef industry in Eastern Canada. More beef cattle from western areas are being exported to the United States. Meanwhile, U.S. beef exports to Eastern Canada have increased. In Mexico, beef production is projected down 10 percent due to a drop in slaughter as improved pasture conditions are expected to permit herd rebuilding this year after 3 years of drought.

Argentina's 1991 beef production was revised up 4 percent from September but remains 3 percent below revised 1990 production levels. Production for 1990 was revised upward 6 percent because farmers were forced to increase slaughter to increase cash flow to pay taxes and farm costs. Slaughter is expected to slow in 1991 because of reduced beef exports to the EC and financial problems in Argentine slaughter plants. Herd reduction and increased slaughter in EC countries is expected to continue and 1991 projections are up over 2 percent. In China, the cattle herd is not growing as rapidly as forecast earlier but a 1.7 million head increase over 1990 is expected. The 1991 Australian beef production estimate has been revised upward 4 percent.

Pork production during 1991 in the countries reviewed is expected to be almost 3 percent higher than estimated in September and up over one percent from last year. Production in the United States is down almost two percent from the September estimate, reflecting a slower growth in breeding inventories than previously forecast. In China, hog inventories for the start of 1991 were up almost 4 percent from the September estimate and 2 percent above 1990. The Chinese pork production estimate for 1991 has been increased almost 7 percent over the September estimate and now shows more than a 3 percent increase from the revised 1990 output. Expanded grain production from the 1990/91 crop is expected to support this stronger growth in pork production. The level of EC pork production for both 1990 and 1991 has been increased from the September estimates. Most of the increase comes from higher production in Germany and the Netherlands. Unfavorable economic conditions in Yugoslavia have reduced both starting 1991 inventories and production prospects. In Romania, starting inventories are up 2 percent from September estimates due to greatly expanded private hog herds. In Poland, increased grain and potato production have helped improve hog-feed ratios and this likely will help boost 1991 production about 2 percent. Despite falling hog prices, hog numbers in Taiwan were 7 percent larger than estimated in September. Projected 1991 pork production has been increased over 4 percent from September's estimate and it now shows a small rise from the 1990 level. In contrast, weak prices in Korea during 1989 had more impact on pork production than earlier thought. Expected pork production for both 1990 and 1991 has been reduced about 15 percent. Small farmers do not seem to be rebuilding their herds as expected. Pending implementation of animal waste regulations, due in 1992, could also have slowed herd growth on larger farmer.

Sheep meat production for 1991 in the countries reviewed is up one percent from the projected September and 1990 levels. Current production forecasts for Australia and New Zealand are up from those of September, with both countries starting 1991 with sheep numbers down from the 1990 level. In Australia, the weak wool market, with stocks equal to about one year's clip, has forced a 6 percent cut in inventory from projected September estimates. More sheep are being slaughtered causing a 3-percent upward revision in sheepmeat production projection for 1991. New Zealand started the year with very good pasture conditions. Sheep numbers are forecast to fall slightly faster than earlier projections because of increased lamb slaughter and reduced breeding. Better markets for beef, low wool prices, and high wool stocks (wool stocks are about 25 percent of yearly clip) are contributing to the sheep flock reduction. In China, sheep and goat numbers are down 11 percent from September estimates.

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TABLE 10

CATTLE AND BUFFALO INVENTORIES 1/
(THOUSAND HEAD JANUARY 1)

SELECTED PRODUCERS	1988	1989	1990 2/	Forecast Sept.	1991 March
CANADA	10,863	11,016	11,201	11,350	11,350
MEXICO	35,378	34,999	31,747	30,046	30,005
UNITED STATES	99,622	98,065	98,162	101,006	99,436
EL SALVADOR	1,101	1,162	1,176	1,214	1,214
ARGENTINA	50,782	50,782	50,582	50,782	50,182
BRAZIL 3/	126,163	128,055	129,975	101,330	131,924
URUGUAY	10,306	10,548	9,377	9,481	9,431
BELGIUM/LUXEMBOURG	3,159	3,174	3,277	3,300	3,430
DENMARK	2,323	2,226	2,232	2,220	2,241
FRANCE	21,052	20,120	19,980	19,830	19,830
GERMANY, FED. REP.	14,887	14,659	14,563	14,568	14,587
IRELAND	5,580	5,637	5,899	6,124	6,000
ITALY	8,898	8,843	8,853	8,769	8,659
NETHERLANDS	4,546	4,606	4,731	4,720	4,800
PORTUGAL	1,332	1,359	1,330	1,316	1,271
SPAIN	5,094	5,200	5,331	5,275	5,300
UNITED KINGDOM	11,849	11,902	11,933	12,143	12,004
BULGARIA	1,649	1,613	1,550	1,497	1,497
SERMANY, DEM. REP.	5,721	5,710	5,724	5,675	4,927
POLAND	10,200	10,100	10,143	9,947	9,023
ROMANIA	7,182	6,416	6,283	6,450	5,952
UGOSLAVIA	4,881	4,759	4,702	4,667	4,670
J.S.S.R.	120,592	119,580	118,300	117,500	117,500
CHINA	94,650	97,950	100,752	111,484	102,500
KOREA, SOUTH	2,386	2,039	2,051	2,088	2,100
JAPAN	4,667	4,682	4,760	4,880	4,865
RAIWAN	172	176	165	168	164
AUSTRALIA	23,469	23,938	24,230	24,952	24,277
NEW ZEALAND	7,999	8,058	7,830	7,866	8,070
SUBTOTAL	696,503	697,374	696,839	680,648	697,209
OTHERS 4/	359,052	362,471	363,939	363,383	363,383
WORLD	1,055,555	1,059,845	1,060,778	1,044,031	1.060.592

1/ This is the semiannual update of the production series regularly published in the World Agricultural Production and World Livestock Situation circulars. World totals compare to those in the above mentioned circulars. 2/ Preliminary. 3/ Historical series revised upward; not comparable to previous estimates. 4/ Countries with no revisions since the September release.

MARCH 1991 PRODUCTION ESTIMATES AND CROP ASSESSMENT DIVISION, FAS, USDA

TABLE 11

BEEF AND VEAL PRODUCTION 1/
(1,000 METRIC TONS CARCASS-WEIGHT-EQUIVALENT)

SELECTED PRODUCERS	1988	1989	1990 2/	Forecast Sept.	1991 March
CANADA	973	980	922	975	918
MEXICO	1,754	2,140	1,790	1,842	1,670
UNITED STATES	10,880	10,633	10,463	10,604	10,635
EL SALVADOR	23	27	28	29	29
ARGENTINA	2,610	2,600	2,650	2,490	2,580
BRAZIL 3/	4,104	4,287	4,180	2,280	4,291
URUGUAY	321	376	349	315	315
BELGIUM/LUXEMBOURG	323	312	326	330	330
DENMARK	217	205	200	200	202
FRANCE	1,780	1,670	1,710	1,720	1,720
GERMANY, FED. REP.	1,609	1,576	1,793	1,620	1,720
IRELAND	458	432	500	507	522
ITALY	1,164	1,140	1,180	1,130	1,165
NETHERLANDS	506	485	540	465	495
SPAIN	450	451	450	450	460
UNITED KINGDOM	945	980	997	1,018	1,023
BULGARIA	131	136	137	126	126
GERMANY, DEM. REP.	369	367	329	410	330
POLAND	783	729	799	726	726
YUGOSLAVIA	301	309	302	300	301
U.S.S.R.	8,600	8,800	8,700	8,700	8,700
CHINA	958	1,072	1,250	1,250	1,400
KOREA, SOUTH	175	124	122	118	118
JAPAN	570	548	545	560	557
TAIWAN	5	6	5	6	5
AUSTRALIA	1,533	1,565	1,695	1,626	1,691
NEW ZEALAND	562	550	470	430	494
SUBTOTAL	42,104	42,500	42,432	40,227	42,523
OTHERS 4/	4,808	5,142	5,301	5,404	5,404
WORLD	46,912	47,642	47,733	45,631	47,927

1/ This is the semiannual update of the production series regularly published in the World Agricultural Production and World Livestock Situation circulars. World totals compare to those in the above mentioned circulars. 2/ Preliminary. 3/ Historial series revised upward; not comparable to previous estimates. 4/ Countries with no revisions since the September release.

TABLE 12

HOG INVENTORIES 1/
(THOUSAND HEAD JANUARY 1)

SELECTED PRODUCERS	1988	1989	1990 2,	Forecast / Sept.	1991 March
CANADA	10,748	11,018	10,756	10,600	10,800
MEXICO	10,879	9,003	8,563	8,593	8,593
UNITED STATES	54,384	55,469	53,852	55,300	54,562
BRAZIL	31,700	31,700	37,500	44,675	44,675
BELGIUM/LUXEMBOURG	5,958	6,306	6,551	6,200	6,715
DENMARK	9,048	9,105	9,120	9,300	9,282
FRANCE	11,915	11,866	11,860	11,860	11,930
GERMANY, FED. REP.	23,670	22,589	22,165	22,240	21,980
IRELAND	960	961	995	1,000	1,000
ITALY	9,383	9,360	9,261	9,210	9,520
NETHERLANDS	14,226	13,820	13,634	13,500	13,800
SPAIN	16,941	16,100	16,910	17,000	17,000
UNITED KINGDOM	7,915	7,626	7,383	7,178	7,494
BULGARIA	4,034	4,134	4,270	4,288	4,288
GERMANY, DEM. REP.	12,503	12,646	12,013	10,323	8,742
POLAND	19,373	20,169	18,685	19,700	19,736
ROMANIA	15,224	14,350	11,659	13,600	13,929
YUGOSLAVIA	8,324	7,396	7,231	7,450	7,100
U.S.S.R.	77,403	78,143	78,900	79,000	79,000
CHINA	327,730	342,220	352,810	346,560	360,000
KOREA, SOUTH	4,281	4,852	4,801	5,000	4,528
JAPAN	11,725	11,866	11,816	11,480	11,495
TAIWAN	7,129	6,954	7,783	8,000	8,570
AUSTRALIA	2,719	2,766	2,765	2,850	2,850
NEW ZEALAND	426	414	380	3 5 5	3 5 5
SUBTOTAL	698,598	710,833	721,663	725,262	737,944
OTHERS 3/	43,135	43,222	41,645	41,454	41,454
WORLD	741,733	754,055	763,308	766,716	779,398

1/ This is the semiannual update of the production series regularly published in the World Agricultural Production and World Livestock Situation circulars. World totals compare to those in the above mentioned circulars. 2/ Preliminary. 3/ Countries with no revisions since the September release.

TABLE 13

PORK PRODUCTION 1/
(1,000 METRIC TONS CARCASS-WEIGHT-EQUIVALENT)

				Forecast	1991
SELECTED PRODUCERS	1988	1989	1990 2/	Sept.	March
CANADA	1,188	1,184	1,140	1,155	1,155
MEXICO	964	910	792	800	820
UNITED STATES	7,114	7,173	6,960	7,214	7,112
BRAZIL	1,100	950	1,050	1,100	1,100
BELGIUM/LUXEMBOURG	813	831	759	797	810
DENMARK	1,168	1,165	1,200	1,225	1,218
FRANCE	1,804	1,840	1,870	1,880	1,880
GERMANY, FED. REP.	3,342	3,161	3,379	2,730	2,987
IRELAND	148	144	155	158	167
ITALY	1,269	1,295	1,280	1,290	1,310
NETHERLANDS	1,632	1,636	1,672	1,600	1,670
SPAIN	1,722	1,722	1,738	1,780	1,800
UNITED KINGDOM	1,048	978	980	1,000	1,022
BULGARIA	404	424	422	400	400
GERMANY, DEM. REP.	1,321	1,317	1,108	1,100	1,100
POLAND	1,845	1,870	1,814	1,873	1,910
YUGOSLAVIA	819	791	771	800	785
U.S.S.R.	6,600	6,700	6,800	6,800	6,800
CHINA	20,176	21,228	22,700	22,000	23,500
HONG KONG	34	30	23	27	23
KOREA, SOUTH	433	485	440	554	460
JAPAN	1,578	1,594		1,560	•
TAIWAN	911	917	1,000	935	1,010
AUSTRALIA	298	302	305	309	309
NEW ZEALAND	4 3	4 4	43	41	41
SUBTOTAL	57,774	58,691	59,961	59,128	60,924
OTHERS 3/	5,206	5,161	5,060	5,045	5,045
WORLD	62,980	63,852	65,021	64,173	65,969

1/ This is the semiannual update of the production series regularly published in the World Agricultural Production and World Livestock Situation circulars. World totals compare to those in the above mentioned circulars. 2/ Preliminary. 3/ Countries with no revisions since the September release.

TABLE 14

SHEEP INVENTORIES 1/
(THOUSAND HEAD JANUARY 1)

				Forecast	1991
SELECTED PRODUCERS	1988	1989	1990	Sept.	March
UNITED STATES	10,945	10,858	11,363	11,500	11,200
ARGENTINA	29,202	29,345	28,571	26,876	26,726
URUGUAY	27,365	28,420	28,420	28,420	28,420
BELGIUM/LUXEMBOURG	160	156	161	163	163
DENMARK	73	86	100	120	120
FRANCE	10,360	11,500	11,500	11,550	11,550
GERMANY, FED. REP.	1,414	1,464	1,533	1,531	1,531
IRELAND	4,301	4,991	5,834	5,775	6,175
ITALY	11,457	11,623	11,695	11,735	11,645
NETHERLANDS	1,169	1,405	1,702	1,550	1,800
SPAIN	20,310	23,797	25,447	27,400	27,000
UNITED KINGDOM	27,820	29,045	29,521	30,691	30,377
BULGARIA	8,886	8,609	7,797	7,118	7,118
GERMANY, DEM. REP.	2,656	2,634	2,603	2,443	2,060
POLAND	4,075	4,300	4,196	4,100	3,900
ROMANIA	18,900	16,210	15,442	16,500	15,038
YUGOSLAVIA	7,824	7,564	7,596	7,650	7,499
U.S.S.R.	140,783	140,684	140,500	138,500	138,500
CHINA 3/	180,340	201,530	211,642	235,986	210,000
AUSTRALIA	162,500	171,292	177,841	186,709	174,174
NEW ZEALAND	64,244	64,600	60,569	58,335	58,175
SUBTOTAL	734,784	770,113	784,033	814,652	773,171
OTHERS 4/	114,444	111,486	110,447	108,802	108,802
WORLD	849,228	881,599	894,480	923,454	881,973

1/ This is the semiannual update of the production series regularly published in the World Agricultural Production and World Livestock Situation circulars. World totals compare to those in the above mentioned circulars. 2/ Preliminary. 3/ Includes Goats in China. 4/ Countries with no revisions since the September release.

TABLE 15

LAMB, MUTTON, GOAT MEAT PRODUCTION 1/
(1,000 METRIC TONS CARCASS-WEIGHT-EQUIVALENT)

				Forecast	
SELECTED PRODUCERS	1988	1989	1990 2/	Sept.	March
MEXICO	73	75	76	78	78
UNITED STATES	152	157	165	167	166
ARGENTINA	87	96	100	107	105
URUGUAY	73	74	74	74	74
BELGIUM/LUXEMBOURG	7	7	7	7	7
DENMARK	1	2	2	2	2
FRANCE	153	160	160	160	160
GERMANY, FED. REP.	3 0	31	3 3	3 4	3 4
IRELAND	49	63	8 6	93	95
ITALY	76	8 0	8 3	81	83
NETHERLANDS	12	13	14	14	15
SPAIN	231	231	240	275	250
UNITED KINGDOM	321	368	371	370	380
BULGARIA	8 9	78	77	70	70
GERMANY, DEM. REP.	19	18	8	9	7
POLAND	25	2 2	28	20	20
YUGOSLAVIA	70	6 9	6 9	6 4	67
U.S.S.R.	1000	1000	1000	1000	1000
CHINA	802	962	1090	1050	1100
KOREA, SOUTH	1	1	1	1	1
AUSTRALIA	549	585	666	681	699
NEW ZEALAND	576	574	499	515	522
SUBTOTAL	4,396	4,666	4,849	4,872	4,935
OTHERS 3/	1,338	1,370	1,386	1,379	1,379
WORLD	5,734	6,036	6,235	6,251	6,314

1/ This is the semiannual update of the production series regularly published in the World Agricultural Production and World Livestock Situation circulars. World totals compare to those in the above mentioned circulars. 2/ Preliminary. 3/ Countries with no revisions since the September release.

### WORLD SOYBEAN PRODUCTION

Global soybean production in 1990/91 is forecast at 104.5 million tons, down by 2.2 million or 2 percent from 1989/90, but 9 percent above the 1988/89 crop. The soybean area, yield, and production estimates for 1974/75 through 1990/91 are provided in the accompanying tables.

The 1990/91 soybean harvest was down only marginally for the United States. Brazilian production is expected to have a large decline this season, with an estimated 15-percent decrease from 1989/90, down 3.0 million tons. Hampered not only by economic problems, including producer credit shortages, on-going high inflation, and a poor exchange rate, persistent dry conditions in the southern growing region of Brazil have greatly reduced yield potential. This is particularly true in the largest soybean growing state of Brazil, Rio Grande Do Sul, which has suffered the most from the dry weather. Excellent rainfall in the center-west States, including Mato Grosso and parts of Mato Grosso Do Sul, has provided favorable growing conditions for an excellent crop. While significant area reductions have been made in the center-west soybean regions, above average yields are expected to help bolster Brazil's overall output.

Argentina also is expected to harvest a smaller 1990/91 soybean crop. Both area and yield are estimated below last year's level. Southern hemisphere soybean estimates could still be affected by weather until the end of May.

Rod Paschal, Oilseed Chairperson (202) 382-8881

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	74/75	75/76	76/77	87177	78/79	79/80	80/81	81/82	82/83	83/84	84/85	98/98	86/87	84/188	88/89	06/68	90/91F
AREA HARVI	ESTED	(1,000	hectares	res)													
United States	20,777	21,698	19,992	23,403	25,764	28,467	27,443	26,776	28,102	25,303			23,598	23,137	23,218	24,094	22,866
	5,824	6,417	7,070	7,782	8,256	8,774	8,501	8,202	8,136	9,421	10,153	9,450	9,270	10,524	12,170	11,400	006'6
China	7,261	666'9	6,691	6,850	7,144	7,247	7,226	8,024	8,419	7,567			8,295	8,411	8,120	8,057	7,629
Argentina	356	434	099	1,250	1,600	2,030	1,740	1,986	2,281	2,910			3,510	4,260	4,000	4,950	4,900
India	90	100	200	225	275	400	392	622	770	836			1,527	1,543	1,734	2,134	2,200
Indonesia	752	646	949	733	784	732	810	809	640	829			920	920	1,177	1,150	1,250
Paraguay	151	173	229	272	360	400	400	420	320	420	220	220	530	615	820	980	 086
Soviet Union	822	811	762	786	815	838	854	864	876	845	772		745	783	260	830	835
Italy	!	!	1	1	;	-	1	က	က	25	36		232	481	432	453	515
Canada	168	158	153	223	285	279	277	279	364	364	405	405	384	461	533	540	504
Thailand	132	118	94	131	145	100	105	125	101	156	193		282	303	392	505	375
Romania	238	121	156	171	202	302	364	310	569	275	292	319	312	350	340	360	360
Korea, DPR	390	395	400	300	300	300	300	300	300	300	320	330	335	340	340	340	340
Mexico	255	312	170	300	215	380	150	370	350	350	350	370	340	390	139	468	276
Bolivia	9	12	00	19	28	38	27	49	33	20	63	99	69	83	44	173	195
South Korea	286	274	247	251	247	207	188	202	183	182	190	156	133	154	145	157	152
Japan	93	87	83	79	127	130	142	149	147	143	134	134	138	163	162	152	146
Turkev	4	9	9	, LC	6	8	က	17	24	24	28	45	09	112	09	100	140
Vietnam	50	37	41	43	38	49	75	104	26	68	120	130	135	135	150	150	140
Colombia	3 &	8	57	9	7.5	2 62	4	49	9	2.5	5.4	74	3	61	66	112	120
France	3 -	3 ~	5 -	3 6	7	17	α	σ	3 0	12	22	28	48	79	35	135	116
Viidoslavia	- σ	1 ਨ		3 0	72	3-	1 0	48	77	107	114	101	96	105	110	88	66
Court Africa	000	5 5	ב מ	א מ	5 %	α α	2 - 6	2 6	300		23	- C	40	44	44	3 2	87
Nigeria	170	170	180	19.5	100	10 t	165	100	8 6	8 5	100	115	200	44	55	. œ	75
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Australia	40	50 50	ည မ	သို့	54 60	20	40	4 1	φ φ	φ 6	201	- 7	8 7	0 0	- (	000	7 7 7
Bulgaria	77	99 99	56	69	55 C	96	99 44 1	95 45 64	69	ጀ (	7.7	_ 0	- c	000	4 r	5 4	9 6
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Burma	22	23	25	24	23	23	52	28	29	28	30	30	35	₩.	36	န္ဌ	ည က
Spain	25	ω	4	4	<b>о</b>	6	7	4	က	•	2	2	•	2	7	<del>-</del>	17
Syria	-	-	-	-	1	1	1	1	1	1	1	1	1	1	10	13	<u>ਨ</u>
Philippines	∞,	=	10	6	ω	10	10	=	6	∞	7	7	∞	6	10	12	<u>र</u>
Sri Lanka	-	-	-	-	-	1	1	1	1	1	1	1	1	က	ω	∞	ω
Guatemala	1	1	-	-	-	1	!	_	-	က	2	വ	14	12	13	13	∞ .
Greece	1	-	-	-	-	1	1	1	1	1	1	!	-	7	က	∞	
Austria	1	1	-	-	-	1	1	1	1	1	1	1	1	•	9	ည	ഹ
Others 1/	47	44	37	34	27	28	19	20	15	13	18	18	23	21	21	19	27
TOTAL	38,182	39,316	38,218	43,489	47,349	51,480	49,647	50,065	52,129	50,812	53,785	52,089	51,653	54,018	55,866	58,031	54,767
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1/ Other soybean producers include those with less than 10,000 tons production in 1990/91.

Production Estimates & Crop Assessment Division, FAS, USDA

## WORLD SOYBEAN YIELDS

	74/75	75/76	76777	77/78	78/79	79/80	80/81	81/82	82/83	83/84	84/85	98/98	86/87	87/88	88/89	06/68	90/91F
YIELD (metric tons per hectare,	ic tons p	er he	stare)														
Italy	;	-	-	1	1	+	1	3.00	3.00	2.48	3.06	3.04	3.47	3.30	3.26	3.53	2.99
Canada	1.79	2.32	1.63	2.60	1.81	2.36	2.49	2.18	2.33	2.05	2.26	2.50	2.50	2.76	2.16	2.26	2.63
Greece	1	i	1	-	-	-	-	-	1	-	-	1	3.00	2.00	2.00	3.25	2.57
Spain	1.56	1.75	1.50	2.00	1.89	1.67	2.00	1.50	1.67	2.00	2.00	2.50	2.00	2.00	1.86	2.46	2.53
Egypt	1.00	1.25	1.57	1.93	2.35	2.52	2.63	2.83	2.77	2.45	3.11	2.89	2.80	2.80	2.60	2.56	2.50
United States	1.59	1.94	1.75	2.06	1.97	2.16	1.78	2.05	2.12	1.76	1.89	2.29	2.24	2.28	1.82	2.17	2.29
France	4.00	1.00	2.00	1.33	1.00	0.94	1.75	2.00	1.78	2.08	1.41	1.62	1.77	2.35	2.48	2.13	2.13
Guatemala	-	-	1	-	-	1	-	1.00	2.00	1.00	1.80	1.80	2.07	2.17	2.15	2.31	2.13
Argentina	1.36	1.60	2.12	2.16	2.31	1.77	2.01	5.09	1.84	2.41	5.06	2.20	1.99	2.28	1.63	2.17	2.10
Hungary	2.00	1.52	1.08	1.41	1.42	1.75	1.85	1.79	2.25	1.73	1.67	1.92	2.25	1.81	1.58	2.15	2.00
Austria	1	-	1	1	-	1	-	-	1	-	-	-	1	!	2.00	2.00	2.00
Bolivia	2.00	1.25	1.38	1.37	1.46	1.26	1.48	1.76	1.58	1.56	1.57	2.23	1.59	1.70	2.04	1.33	2.00
Colombia	1.92	1.97	1.81	1.90	5.06	1.95	2.02	2.05	2.03	1.84	1.93	2.08	1.97	1.89	1.90	1.89	1.93
Iran	09.0	1.30	1.79	2.05	1.69	1.64	2.67	2.50	2.36	1.88	1.80	1.80	1.80	1.80	1.80	1.80	1.80
Zimbabwe	1.56	1.80	1.83	2.00	1.87	1.75	1.74	1.48	1.30	1.61	1.96	1.87	1.83	1.83	1.70	1.60	1.74
Ecuador	1.50	1.14	1.27	1.27	1.44	1.43	1.48	1.67	1.75	1.20	1.84	1.78	1.81	1.67	1.65	1.66	1.73
South Africa	0.83	0.82	1.12	1.48	1.00	1.43	1.18	96.0	0.87	0.91	1.52	1.17	1.58	1.91	1.59	1.80	1.72
Mexico	1.65	2.00	1.65	1.57	1.54	1.79	1.87	1.84	1.57	1.71	1.57	1.92	1.94	1.92	2.16	2.10	1.72
Brazil	1.70	1.75	1.77	1.23	1.24	1.73	1.79	1.57	1.81	1.65	1.80	1.49	1.87	1.71	1.91	1.75	1.72
Australia	1.61	1.73	1.57	1.54	1.83	1.44	1.83	1.88	1.10	1.85	1.75	1.48	1.74	1.63	1.59	1.61	1.71
Syria	+	1	1	1	1	1	1	1	-	1	1	1	1	1	1.60	1.54	1.67
Paraguay	1.46	1.64	1.65	1.22	1.53	1.44	1.50	1.43	1.49	1.31	1.73	1.09	1.79	1.79	1.90	1.53	1.63
Yugoslavia	1.56	2.00	1.55	2.09	1.85	2.16	2.00	1.92	2.57	1.96	2.00	1.72	2.34	2.26	1.64	2.38	1.56
South Korea	1.12	1.14	1.19	1.27	1.19	1.24	1.15	1.27	1.27	1.24	1.34	1.50	1.50	1.32	1.65	1.61	1.53
Japan	1.43	1.45	1.33	1.41	1.50	1.48	1.23	1.42	1.54	1.52	1.78	1.70	1.78	1.76	1.71	1.79	1.51
China	1.03	1.03	0.99	1.06	1.06	1.03	1.10	1.16	1.07	1.29	1.33	1.36	1.40	1.48	1.43	1.27	1.51
Uruguay	1.07	1.13	1.09	1.36	1.00	1.29	1.29	1.14	1.33	1.25	1.50	1.80	1.86	1.63	1.10	1.28	1.49
Korea, DPR	0.72	0.73	0.75	1.03	1.07	1.10	1.10	1.10	1.10	1.13	1.25	1.29	1.30	1.29	1.29	1.29	1.29
Turkey	2.25	1.17	1.33	1.20	1.00	1.00	0.67	0.88	1.50	1.92	2.14	1.67	2.00	1.07	1.17	1.20	1.29
Thailand	0.83	0.97	1.21	0.73	1.10	1.02	0.95	1.06	1.12	1.15	1.28	1.28	1.26	1.12	1.32	1.34	1.28
Sri Lanka	1	1	!	!	-	1	1	1	1	1	1	1	!	0.67	1.25	1.25	1.25
Romania	1.25	1.76	1.37	1.12	1.14	1.27	1.23	0.87	1.12	0.94	1.39	0.99	1.51	1.00	1.00	1.25	1.19
Zambia	1	1	!	1	0.50	1.00	0.80	1.40	1.60	1.44	1.50	1.21	1.05	1.23	1.06	0.95	1.16
Soviet Union	0.44	0.96	0.63	0.69	0.78	0.56	0.62	0.57	0.61	0.67	0.61	0.63	0.94	0.91	1.16	1.15	1.10
Bulgaria	1.22	2.25	1.77	1.30	1.21	1.64	1.14	1.20	1.68	1.28	1.00	0.55	1.06	0.94	1.00	1.00	1.00
Indonesia	0.79	0.81	0.81	0.84	0.87	0.89	0.87	0.86	0.84	0.90	0.97	0.98	0.98	1.00	1.02	96.0	96.0
India	0.39	0.70	0.75	0.80	0.80	0.88	1.13	0.75	0.64	0.73	0.77	0.76	0.58	0.58	0.89	0.80	96.0
Nigeria	0.38	0.38	0.39	0.37	0.38	0.39	0.33	09.0	0.65	0.50	0.60	0.48	0.70	0.91	1.00	0.88	0.87
Philippines	0.75	0.73	0.80	0.78	1.00	0.30	1.00	1.00	0.89	1.00	1.00	0.86	0.88	0.78	0.80	0.83	0.80
Vietnam	0.52	0.60	0.49	0.56	0.56	0.65	0.75	0.73	0.66	0.75	0.72	0.69	0.70	0.70	0.80	0.80	0.75
Burma Others 1/	0.59	0.52	0.64	0.67	0.70	0.65	0.68	0.68	0.69	0.79	1.28	0.77	0.84	0.79	0.78	0.80	0.57
OUIGIS IV	00	2	3	20	1.07	00.1	20	24.	7	04	07.1	00.1	1.07	1.32	1.32	1.03	*/:-
AVERAGE	1.43	1.67	1.56	1.66	1.64	1.82	1.63	1.72	1.79	1.64	1.73	1.86	1.90	1.92	1.71	1.84	1.91
			:														

1/ Other soybean producers include those with less than 10,000 tons production in 1990/91.

		1		1	1		1										
	74/75	75/76	76/77	87177	7879	79/80	18/08	81/82	82/83	83/84	84/85	85/86	28/98	84//88	88/89	06/68	90/91F
<b>PRODUCTION</b>	N (1,000	M metric	ic tons)														
United States	33,102	42,139	35,070	48,097	50,859	61,525	48,921	54,135	59,610	44,518	50,644	57,127	52,868	52,746	42,153	52,354	52,302
	9,892	11,227	12,513	9,541	10,240	15,156	15,200	12,835	14,750	15,541	18,278	14,100	17,300	18,021	23,200	20,000	17,000
China	7,470	7,240	6,640	7,260	7,565	7,460	7,940	9,325	9,030	9,760	9,695	10,509	11,614	12,465	11,645	10,230	11,500
Argentina	485	695	1,400	2,700	3,700	3,600	3,500	4,150	4,200	2,000	6,750	7,300	2,000	9,700	6,500	10,750	10,300
India	35	20	150	180	220	320	445	467	491	614	955	1,020	891	868	1,547	1,715	2,100
Paraguay	220	284	377	333	549	575	009	0	520	220	950	009	920	1,100	1,615	1,500	1,600
Italy	-	-	-	1	1	1	1	0	တ	62	110	286	908	1,589	1,408	1,600	1,540
Canada	301	367	250	280	516	657	069	607	848	735	917	1,012	096	1,270	1,153	1,219	1,327
Indonesia	290	525	523	617	680	653	704	521	536	692	870	950	900	920	1,200	1,100	1,200
Soviet Union	360	780	480	540	634	467	525	491	536	260	469	465	703	712	880	926	920
Thailand	110	114	114	96	159	102	100	132	113	179	246	309	356	338	517	672	480
Mexico	420	625	280	470	330	680	280	680	550	009	550	710	099	750	300	984	474
Korea, DPR	280	290	300	310	320	330	330	330	330	340	400	425	435	440	440	440	440
Romania	298	213	213	191	230	383	448	268	301	259	407	317	472	350	340	450	430
Bolivia	12	1 7	=	98	41	48	40	86	52	78	66	147	110	141	294	230	390
France	4		. ~	4	4	16	4	2 2	16	25.	8 6	46	85	186	228	287	247
South Kores	210	211	20C	210	203	257	216	257	223	226	25.4	23.4	100	203	230	252	233
Colombia	160	- C	667	10.4	446	157	000	300	100	220	101	45.4	100	245	477	212	232
Coloniola	607	07	3 ;	2 ;	04-	+ C	9 1	200	771	7 7	† 6 5 6	† c	071	001	077	212	7000
Japan	25. 25.	126	91	Ξ'	95	192 0	1/4	212	977	/17	238	977	247 201	/97	117	7/7	750
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South Africa	20	<u>~</u>	88	37	56	40	56	2	56	32	8	88	93	\$	0 7	110	150
Yugoslavia	14	တ္တ	48	67	63	67	8	95	198	210	228	174	225	237	180	503	145
Egypt	2	ည	=	27	79	106	95	130	166	162	143	133	140	140	130	9	125
Zimbabwe	28	45	44	20	\$	83	99	83	79	96	98	8	108	119	121	109	122
Ecuador	က	∞	14	19	23	30	31	35	35	9	46	22	88	92	102	108	107
Vietnam	15	22	20	24	20	32	26	9/	4	67	98	90	95	92	120	120	105
Iran	18	20	102	98	113	95	120	125	130	96	96	6	8	06	06	96	06
Hungary	30	38	42	41	27	33	37	43	54	52	20	46	21	છ	5	116	06
Australia	74	45	55	77	66	82	73	77	53	88	110	105	115	75	113	06	72
Nigeria	65	65	20	20	73	75	55	09	65	20	09	22	20	40	22	09	— 62
Uruguay	15	တ	12	30	33	45	45	52	12	10	21	45	80	20	22	22	28
Zambia	-	-	-	-	-	4	4	7	ω	13	15	17	22	32	8	36	44
Spain	33	14	9	∞	17	15	14	9	ည	2	4	വ	2	4	13	27	43
Bulgaria	33	80	66	90	120	157	107	113	116	82	72	33	54	8	40	40	40
Syria	-	1	-	1	-	1	-	-	1	-	1	1	-	1	16	20	52
Burma	13	12	16	16	16	15	17	19	20	22	23	23	27	27	28	28	50
Greece	-	-	-	1	-	1	;	1	1	1	ł	-	က	4	9	26	18
Guatemala	-	-	-	1	-	1	1	-	2	က	6	တ	29	56	28	30	17
Philippines	9	∞	∞	7	∞	0	10	=	ω	ω	7	9	7	7	∞	10	12
Austria	1	1	-	-	-	i	-	1	1	1	1	1	1	1	12	10	10
Sri Lanka	-	-	-	-	-	ł	1	1	1	1	1	-	1	7	10	10	10
Others 1/	72	64	61	22	45	45	31	53	21	19	23	28	36	32	32	36	47
TOTAL	54,656	65,635	59,475	72,238	77,528	93,546	81,033	86,196	93,571	83,186	93,135	97,055	98,104	103,656	95,550	106,783	104,530
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1/ Other soybean producers include those with less than 10,000 tons production in 1990/91.

Production Estimates & Crop Assessment Division, FAS, USDA

### WEST EUROPEAN FORESTRY SITUATION

Forest stands in several West European countries sustained extensive damage from storms with gale force winds, during early 1990. The massive blow-down caused sharp increases in roundwood supplies in West Germany (up 192 percent), Austria (up 11 percent), and the United Kingdom (up 6 percent). Larger harvests occurred in France, Belgium-Luxembourg, and the Netherlands in line with the long-term growth trend already evident in these countries. Only the northern and southern peripheral countries (Denmark, Italy, and Spain) recorded reductions in production of both roundwood and products.

WEST GERMANY: The West German wood-producing and wood-working industry was confronted with an unusual and difficult situation during 1990. Severe storms, in February 1990, uprooted and damaged trees equivalent to approximately 73 million cubic meters (CUM) of wood. When added to the 20 million CUM of wood harvested prior to the storms, the 1990 harvest totaled 93 million CUM-more than three times West Germany's annual requirement. The 73 million CUM of thrown timber (i.e. downed and broken) consisted of 55.8 million CUM of spruce, 7.9 million CUM of pine, 7.6 million CUM of beechwood, and 1.1 million CUM of oak. In an effort to stabilize the roundwood situation, the West German Government funded and implemented a program whereby 9.8 million CUM of the total 1990 harvest were put into wet storage, 17.9 million CUM in dry storage, 17.3 million CUM were sold as logs, and 48.0 million CUM were processed.

The sawmilling sector has invested heavily in new equipment over the past several years. Modern, high-capacity "profiler" equipment has increasingly replaced traditional, low-capacity frame-saw facilities. This additional processing capacity, combined with stronger demand from the construction, furniture and panel industries boosted 1990 production of lumber, veneer, plywood, particleboard, and fiberboards to record levels. Future growth is strongly tied to continued growth in the housing industry, joint government-industry efforts to reforest storm-damaged areas, and control of environmental damage to the growing stock.

AUSTRIA: After several unprofitable years, Austria's forestry sector experienced an economic turnaround in 1988, and continued growth in 1989. Further expansion was projected for 1990, but severe storms during February and March of 1990 caused widespread damage to Australian forests, resulting in the blow-down of approximately 4.8 million cubic meters (CUM) of standing timber. To avoid damage by elephant beetles and other pests, massive resources were rapidly mobilized to remove the downed trees. This significantly increased removal costs and depressed log prices.

Most of the storm damage occurred in the province of Upper Austria where the volume of wood damaged was greater than the region's average annual felling rate of 2.2 million CUM. Throughout the country, large trees were more badly damaged than smaller ones, and mixed stands proved less susceptible to "blow-down" than monocultures. Spruce trees, the mainstay of the Austrian industry, accounted for 89.5 percent of the total wood damaged. Hardwoods comprised only 6.2 percent. In an effort to reduce monetary losses in the forestry sector, the Agricultural Ministry quickly implemented the following program:

- 1. Subsidy payments ranging from AS 6,000-15,000 per hectare for the removal of damaged wood. The exact amount of the subsidy was determined by removal conditions.
- 2. Storage of damaged wood subsidized at the rate of AS 150 per cubic meter.
- 3. Subsidy payments for new road construction in damaged areas.
- 4. Ample low-interest credit for the purchase of forestry equipment and machinery.

During the first half of 1990, Austria's favorable economic situation and the large volume of storm-damaged trees increased the normal felling rate 47 percent over the same period in 1989. Actual fellings slackened during the latter half of 1990, as harvesting activities were restricted to the removal of damaged timber. The total 1990 harvest is currently estimated at a record 15.3 million CUM. Softwood log production reportedly accounted for two-thirds of this total, or 10.2 million CUM. The oversupply situation immediately after the storm sent softwood log prices spiraling downward. By August 1990, average prices had plummeted 18 percent to AS 1,075. The price drop would have been even greater had the Government not taken the initiative on two fronts. An immediate appeal was made to all sawmills to "buy Austrian". Secondly, the Government included in the subsidized storage program the proviso that logs be stored for a minimum of three months. However, because of quality concerns, a dual set of prices developed for wood from "storm areas" vis-a-vis wood from "non-storm areas". Softwood logs from "storm areas" sold for about 10-15 percent less than logs from unaffected areas. Because hardwoods sustained little storm damage, price declines were short-lived. Prices began trending upward in May. By August, the per cubic meter price for beechwood (the main Austrian hardwood species) was AS 1,038--approximately the same level as in August of 1989. Output of lumber and panel products continued to expand during 1990 in response to rising demand in both domestic and export markets.

UNITED KINGDOM: Roundwood production in the United Kingdom has been expanding since 1984 in line with industry efforts to satisfy a larger portion of the U.K.'s annual wood requirement with domestic supplies rather than imports. Total availability increased significantly during 1990 when storms felled a significant amount of wood. Prospects for sustained growth appear excellent. Intensive plantings carried out over the past several decades are expected to double yields from U.K. forests by the year 2005.

The leading wood products manufactured in the United Kingdom are softwood lumber, temperate hardwood lumber, medium density fiberboard and particleboard. Output has increased steadily, in recent years, mainly due to the greater availability of domestically produced sawlogs, and strong demand strong demand from non-industrial users requiring a variety of wood products for repairs, maintenance, improvements and do-it-yourself projects. The recent growth in output of temperate hardwood lumber reflects increasing substitution of temperate species for tropical ones, and a continuing shift in consumer preference toward light-colored hardwoods. Although particleboard production totaled a record 1.6 million CUM in 1990, medium density fiberboard (MDF) displayed the most dynamic growth in the wood products sector. Expansion of production capacity in 1988 boosted output that year by 80 percent, to 126,000 CUM. By 1990, output of MDF had reached a record 198,000 CUM, and had become a preferred substitute for other fiberboards and many traditional solid wood products.

FRANCE: The French wood industry fared well during 1990. Roundwood production reached a record 37.4 million CUM--in line with the long-term growth trend begun in 1982, but somewhat higher than originally projected because of the large volume of trees uprooted by high winds early in the year. Most of the downed trees were hardwood species, primarily beech. Because of falling export demand for temperate hardwoods, a significant portion of these damaged trees were not removed from the forests, resulting in a 6-percent decline in temperate log output for the year. In contrast, softwood log production increased for the fifth consecutive year, mainly due to strong export demand. Output of lumber and most panel products continued to rise relative to 1989 because of strong global demand from the building, packaging and furniture industries. Long-term prospects are especially bright for France's fiberboard and particleboard sectors given the recent increases in production capacity, the ongoing modernization of older processing facilities, growing demand for new types of particleboards and fiberboards, increased building activity, and sustained export demand.

DENMARK: The Danish forest products industry is currently in a slump and is expected to remain that way through 1991. This situation was fueled by a weak economy, low prices, government spending reductions, and stagnant construction activity. Denmark's 1990 timber harvest was 2.0 million CUM, 2 percent smaller than a year ago. The depressed financial situation in Denmark, and the competition presented by West Germany's massive stock of gale-damaged logs, precipitated an 8 percent drop in fellings of softwood logs. Reduced building activity slackened demand for softwood lumber and particleboard. Softwood log prices slumped throughout the year yielding only marginal profits for both loggers and millers. Many softwood mills were forced to shut down indefinitely. The Danish hardwood sector fared much better. temperate hardwood logs and lumber increased during 1990, primarily in response to strong demand from the furniture manufacturing industry seeking to satisfy the consumer's preference for light-colored woods like ash, beech, oak and pine. Long-term expansion in the forestry sector currently hinges upon a strengthening of the Danish economy, Government initiatives to turn marginal soils into commercial forest land, and Denmark's continued dominance as the world's leading producer and and exporter of Christmas trees and greenery.

NETHERLANDS: The 1990 timber harvest in the Netherlands totaled a record 1.3 million CUM, up 15 percent from the 1989 volume. This is in line with the Government's long-term objective that the industry reach a forest product self-sufficiency rate of 25 percent by the year 2030. Most of the increase in production is expected to come from two species, Scotch Pine and Poplar. The Government recently instituted a variety of subsidy programs to encourage farmers to shift land into timber production. Approximately 1,000 hectares have been afforested to date, mostly in the heavy clay soils prevalent throughout the northern part of the country. Poplar and spruce have been the dominant species planted thus far. The Government envisions that forest plantings will increase by 1,000-1,500 hectares per year.

BELGIUM: Belgium's annual timber harvest has increased steadily for the past eight years. The total cut for 1990 reached a new high of 5.1 million CUM. Softwood log production exhibited a similar pattern—more than tripling in size from a 1982 level of 850,000 CUM, to 2.6 million CUM in 1990. Output of softwood lumber during 1990 was 1.1 million CUM, 10 percent greater than the 1989 level, and 46 percent above the previous 5-year average. Particleboard production has been expanding in recent years but at a much more moderate rate. Since 1988, output has increased by 5 percent annually culminating in a record 2.2 million CUM in 1990.

SPAIN: Spain's timber harvest declined for the second consecutive year, due to reduced demand from the construction industry, forest fires, and heavy damage to pine trees resulting from severe infestations of Gypsy moths. Total fellings for 1990 reached only 14.0 million CUM, 3 percent below the 1989 volume. Production of logs and lumber emulated this decline. The bright spot in Spain's wood industry is the fiberboard sector, where substantial investments to expand production capacity and develop new products, have spurred substantial growth. Production of hardboard and medium density fiberboard reached record levels of 208,000 CUM and 230,000 CUM, respectively, during 1990.

ITALY: Little growth occurred in Italy's forestry sector during 1990. The annual cut totaled 6.9 million CUM, slightly below the 7.0 million CUM harvested in 1989, due to declining yields from aging trees, high harvest costs, and fire damage. Marginal production declines were recorded for softwood logs, temperate hardwood logs and railroad ties. Output of temperate hardwood lumber was 10 percent below the 1989 level due to fluctuating supplies of raw material. The most significant downturn was a 20-percent drop in production of tropical hardwood lumber due to declining availability of tropical species. Production of poles, plywood, hardboard, and particleboard remained static at the 1989 level. The only processed products recording gains during 1990 were softwood lumber, due to increased domestic demand, and medium density fiberboard because of expanded production capacity.

Bernadine Baker (202) 382-8891

EUROPE: FORESTRY PRODUCTION IN SELECTED COUNTRIES (1,000 Cubic Meters)

	1984	1985	1986	1987	1988	1989	1990 1/
AUSTRIA:							
HARVEST	12,111	11,625	12,130	11,760	12,032	13,822	15,340
Softwood Logs	8,225	7,355	7,646	7,463	8,221	9,086	10,226
Temperate Hardwood Logs	481	386	416	395	424	465	487
ood Lumber	6,039	5,748	5,544	6,671	7,088	7,723	7,770
Temperate Hardwood Lumber	237	214	204	303	312	335	361
·-	43	38	35	24	18	17	16
Veneer	19	19	19	18	2.0	21	22
Plywood	4	4	11	18	18	111	120
ਾਜ	80	98	87	89	9.7	96	101
Particleboard	1,152	1,199	1,236	1,308	1,429	1,405	1,615
BELGIUM-LUXEMBOURG:							
HARVEST	2,930	3,070	3,345	3,500	3,690	4,635	5,100
Softwood Logs	0	10	1,250	1,400		2,250	2,600
Temperate Hardwood Logs	10	750	765	670		725	700
Softwood Lumber	435		575	810	-	1,000	1,100
Temperate Hardwood Lumber	NA	NA	NA	440		468	480
Tropical Hardwood Lumber	57	6 5	6.5	44	~	35	35
Railroad Ties/Sleepers	16	16	16	16		15	15
Veneer	35	38	42	40	and the	45	43
Plywood	5.8	50	5.8	0.9	10	9	9
Particleboard	1,750	1,850	1,950	2,025		2,100	2,200

CONTI							FOOTNOTES AT END OF TABLE
350		385	m	333	317	376	Particleboard
4	4	9	4	m	m	1	Hardboard
7	7	7	10	11	6	6	Veneer
7	0	2	10	4	4	21	Railroad Ties/Sleepers
70	09	6.2	20	58	62	69	Temperate Hardwood Lumber
200	281	233	244	291	340	260	Softwood Lumber
200	484	469	423	721	752	490	Temperate Hardwood Logs
1,100	1,196	1,222	1,172	1,396	1,441	1,040	Softwood Logs
2,050	2,102	2,163	2,072	2,130	2,193	2,506	HARVEST
							DENMARK:

EUROPE: FORESTRY PRODUCTION IN SELECTED COUNTRIES

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National Control Con								
Logs  Hardwood Lumber  Egyptagers  Jenseyers  Jenseyers								
Property	HARVEST	0,23	0,55	1,99	3,07	5,62	27	37
Hardwood Logs	oftwood	1,00	0,78	1,11	1,60	2,46	3,00	3,20
Lubber Lumber 5,574 5,699 5,655 2,813 1,615 1,64	erate Hardwood Log	63	,92	, 14	, 79	,57	, 90	, 30
Hardwood Lumber   5,639   5,740   5,956   6,34     Hardwood Lumber   2,729   2,729   2,740   5,930   3,16     Hardwood Lumber   310   1,645   1,610   1,628   1,613   1,93     EPUBLIC OF GERMANY:	prop.	3	60	76	23	16	15	15
# Hardwood Lumber 2,762 2,729 2,865 2,930 3,16  # Hardwood Lumber 2,762 2,729 2,865 2,930 3,16  # Hardwood Lumber 2,762 2,729 2,865 2,930 3,16  # Hardwood Lumber 2,762 3,108 3,148 3,275 3,181 1,93  # Hardwood Lumber 1,93 1,645 1,610 1,628 1,671 1,93  # Board 2,99 1,79 29,50 1,608 1,608 1,571 1,041  # Hardwood Logs 1,99 1,89 1,89 1,99 1,99 1,99 1,99 1,99		,61	69'	,74	,95	,34	90	00
Hardwood Lumber 511 443 525 517 52 Ties/Sleepers 139 146 156 167 19  146 156 167 19  147 146 15 167 19  150 170 175 18  150 1 1,610 1,628 1,673 1,93  150 1 1,610 1,628 1,673 1,93  150 1 1,610 1,628 1,673 1,93  150 1 1,59 1 1,59 1 1,59 1 1,59 1 1,59  150 1 1,59 1 1,59 1 1,59 1 1,59 1 1,59 1 1,59  150 1 1,59 1	Hardwood	,76	,72	,86	,93	,16	,36	,40
Ties/Sleepers 139 146 158 167 19 146 158 167 19 19 146 148 148 148 148 148 148 148 148 148 148	Hardwood	_	7	52	51	52	55	55
### 131 28 42 44 42 44 42 47 45 49 471 451 461 1,610 1,628 1,673 1,93 1,93 1,93 1,93 1,93 1,93 1,93 1,9	Ties/Sleeper	3	4	5	9	0	-	4
### ### ### ### ### ### ### ### ### ##		31			4		4	
DERAL REPUBLIC OF GERHANY:		7	0	-	5	•0	-	$\boldsymbol{\dashv}$
### SET STATE REPUBLIC OF GERMANY:    26,590	berboar	7	27	27	28	26	295	400
EDERAL REPUBLIC OF GERMANY:  ANYEST  ANYEST  Oftwood Logs  Asiles  Asi	articleboar	,64	,61	,62	,67	, 93	0	0
EDERAL REPUBLIC OF GERMANY:  ANY EST  Oftwood Logs  arithmose Lumber  12,709  11,709								
Active of Logs  The color of Logs  The color of Logs  The color of Lumber  The color of The color of Lumber  The c	EDERAL REPUBLIC OF GERMANY							
ARRENGES  ARRENG							•	•
## 10	ARVEST	6 , 59	1,07	9,17	8,69	9,50	1,81	3,00
emperate Hardwood Logs 3,108 3,148 3,275 3,181 2,97 emperate Hardwood Logs 1,108 1,185 1,608 1,597 ailtroad Ties/Sleepers 1,593 1,650 1,608 1,571 ailtroad Ties/Sleepers 1,593 1,650 1,608 1,571 ailtroad Ties/Sleepers 1,593 1,650 1,676 arthorated Ties/Sleepers 2,974 2,812 2,820 5,987 6,63  TALY:	oftwood Logs	2,70	5,04	2,85	3,00	4,10	5,97	3,00
articleboard Lumber 1,593 1,595 9,545 9,680 10,455 artwood Lumber 1,593 1,590 1,608 1,571 1,771	emperate Hardwood Log	, 10	, 14	, 27	, 18	2,97	5	0
ailroad Ties/Sleepers 1,593 1,550 1,608 1,571 1,711 1,	oftwood Lumbe	, 13	. 89	, 54	, 68	0,45	1,57	2,25
ailroad Ties/Sleepers 194 185 191 158 14 eneer 396 391 400 42 eneer 360 336 391 400 440 arthoard Density Fiberboard 5,974 5,812 5,850 5,987 6,633  TALY:	ardwood Lumbe	, 59	, 55	, 60	, 57	, 57	, 59	, 70
rd bensity Fiberboard  d Logs  d Logs  d Lumber  t Hardwood Lumber  I	ailroad Ties/Sleeper	0	60	0	2	4	124	110
rd bensity Fiberboard bensity Fiberboard  Logs d Logs d Lumber l Hardwood Lumber	Veneer	0	0	0	0	7	-	9
ardboard 219 219 203 99 203 acdboard 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		9	m ·	4	S	-	0	'n (
### State Property Fiberboard	ardboard	_	-	0	0		0	Ä
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TALY: ARVEST ARVEST Oftwood Logs Oftwood Logs Oftwood Lumber Topical Hardwood Lumber Topical Har	articleboar	, 97	, 81	00	86,	, 63		
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ARVEST         NA         8,502         9,557         7,151         7,05           Oftwood Logs         751         804         1,198         800         90           emperate Hardwood Logs         1,071         1,189         476         2,050         1,74           oles/Pitprops         1,003         900         854         880         90           oftwood Lumber         1,192         1,388         1,001         1,100         1,10           ropical Hardwood Lumber         80         60         50         7           ailroad Ties/Sleepers         52         45         64         50         6           lywood         1ywood         86         3375         3390         41           ardboard         NA         NA         NA         85         110         45	1							
oftwood Logs         751         804         1,198         800         90           emperate Hardwood Logs         1,656         2,005         2,050         1,74           oles/Pitprops         1,003         900         854         80         90           oftwood Lumber         1,192         1,388         1,001         1,100         1,10           emperate Hardwood Lumber         NA         80         60         50         7           ropical Hardwood Lumber         52         45         64         50         6           ailroad Ties/Sleepers         346         360         375         390         41           lywood         NA         NA         NA         NA         NA         165         110           edium Density Fiberboard         NA         NA         NA         NA         NA         NA         NA		NA	, 50	, 55	,15	, 05	0	0
emperate Hardwood Logs       1,656       2,005       1,74         oles/Pitprops       1,071       1,189       476       155       15         oftwood Lumber       1,003       900       854       880       90         emperate Hardwood Lumber       1,192       1,388       1,001       1,100       1,10         ropical Hardwood Lumber       NA       80       60       50       7         ailroad Ties/Sleepers       52       45       64       50       6         lywood       NA       NA       165       130       41         ardboard       NA       NA       85       110       45	oftwood Logs	751	0	, 19	80	90	90	0 6
oles/Pitprops     1,071     1,189     476     155     15       oftwood Lumber     1,003     900     854     880     90       emperate Hardwood Lumber     1,192     1,388     1,001     1,100     1,10       ropical Hardwood Lumber     NA     80     60     50     7       ailroad Ties/Sleepers     52     45     64     50     6       lywood     346     360     375     390     41       ardboard     NA     NA     165     130     11       edium Density Fiberboard     NA     NA     85     110     45	emperate Hardwood Log	589	, 65	00,	, 05	, 74	-	0
1,003       900       854       880       90         emperate Hardwood Lumber       1,192       1,388       1,001       1,100       1,10       41         ailroad Ties/Sleepers       346       360       375       390       41         ardboard       NA       NA       165       130       11         edium Density Fiberboard       NA       NA       NA       85       110       45	oles/Pitpro	1,071	, 1	47	15	15	140	140
emperate Hardwood Lumber     1,192     1,388     1,001     1,100     1,10       ropical Hardwood Lumber     NA     80     60     50     7       ailroad Ties/Sleepers     52     45     64     50     6       lywood     346     360     375     390     41       ardboard     NA     NA     165     130     11       edium Density Fiberboard     NA     NA     85     110     45	oftwood Lu	1,003	006	8 2	00	90	80	80
ropical Hardwood Lumber     NA     80     60     50     7       ailroad Ties/Sleepers     52     45     64     50     6       lywood     346     360     375     390     41       ardboard     NA     NA     165     130     11       edium Density Fiberboard     NA     NA     85     110     45	emperate Hardwood	1,192	ω,	000	10	, 10	7	0
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lywood       346       360       375       390       41         ardboard       NA       NA       165       130       11         edium Density Fiberboard       NA       NA       85       110       45	ailroad Ties/Sleeper	52	45	9	S	9	S	S
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PRODUCTION ESTIMATES AND CROP ASSESSMENT DIVISION, FAS, USDA

MARCH 1991

TABLE 19 (Continued)

EUROPE: FORESTRY PRODUCTION IN SELECTED COUNTRIES (1,000 Cubic Meters)

NETHERLANDS:	1986 1,110 230 260 152 161 16 17,287 3,906 1,840	1987 1,192 230 230 230 164 178 1400 1,923 1,923	1988 1,115 230 265 140 15,000 15,000 3,100 2,080	1989 1,130 190 190 190 14,500 5,300	1990 1/ 1,300 170 190 190 14 14 14,000
THERLANDS:  RVEST ftwood Logs ftwood Lumber  ppical Hardwood Lumber  pwood  rticleboard  AIN:  RVEST  AIN:  RVEST  RVEST  RVEST  RWEST  RWES  RWEST  RWEST  RWEST  RWEST  RWEST  RWEST  RWEST  RWEST  RWEST	1,72 1,32,00 1,00 1,00 1	1, 19 2, 10 1, 10	1,11 23 26 14 11 11 11 11 11 12 13 10 2,00 3,08	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	1,30 11,10 1
### 1,09  ###################################	1,11 1,23 1,10 1,28 1,39 1,39 1,39 1,39 1,39 1,39 1,39 1,39	1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	1,11 23 26 14 11 11 11 11 11 12 14 12 13 14 13 14 13 14 14 14 14 14 14 14 14 14 14 14 14 14	11 11 11 11 11 11 11 11 11 11 11 11 11	1,30 1,10 1,10 1,10 1,10 1,10 1,10 1,10
ftwood Logs  mperate Hardwood Logs ftwood Lumber  mperate Hardwood Lumber  mperate Hardwood Lumber  neer  ywood  rticleboard  AIN:   RVEST  ftwood Logs  mperate Hardwood Lumber  mperate Hardwood Lumber  mperate Hardwood Lumber  mperate Hardwood Lumber  ftwood Lumber  mperate Hardwood Lumber  ftwood Plywood  mperate Hardwood Lumber  11,641  1,68  mperate Hardwood Lumber  ftwood Plywood  mperate Hardwood Lumber  122  138  NA  NA  NA  NA  NA  NA  NA  NA  NA  N	22, 1, 1, 2, 2, 3, 3, 4, 1, 1, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4,	23 28 28 11 11 14 11 17 17 17 17 17 17 17 17 17 17 17 17	23 26 114 7 7 7 11 11 11 12 13 5,00 5,00 2,08	11 19 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	24,000 100,100 100,000
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MARCH 1991

### Malaysian Palm Oil Production

Malaysia is the largest palm oil producer in the world and accounts for 56 percent of the total production and 70 percent of the world palm oil exports. Malaysia is forecast to produce 6.2 million tons of crude palm oil in 1990/91, down 3 percent from last year. Tree stress due to abnormally dry weather during the last quarter of 1989 and first half of 1990 and overproduction during 1989/90 are blamed for the decline. There is generally a 12 to 18 month lag in the effect of rainfall on palm oil yields. Also, a heavy crop in one year can lead to a reduction in the subsequent crop, even if fertilizer and other external requirements are favorable.

Palm oil is a year-round crop but in Malaysia production follows a seasonal cycle of steadily falling output, starting in October and reaching the lowest output in January or February. The output then turns around in March and reaches a peak during August or September. Since 1986/87, total output has been increasing at about 10 percent per year. The 1990/91 crop will be the first downturn since 1986/87 when the crop slipped 4 percent from the previous year. Even though the 1990/91 crop is estimated lower than last year, the Malaysian government is still expecting further expansion in coming years. For example, the Government is encouraging palm oil refiners to set up joint ventures overseas and is specifically targeting China, Pakistan, the USSR, and Mexico. Presently, there are refineries with Malaysian interests in England, the United States, and Egypt. The Government is also ready to grant duty exemption for crude palm oil exports for such joint ventures.

Palm oil production estimates in Malaysia are released by the Government's Palm Oil Registration and Licensing Authority (PORLA) with statistics reported for two regions: Peninsular Malaysia and East Malaysia. Peninsular Malaysia produced nearly 90 percent of the country's palm oil last year. Palm oil area has been expanding due to the Government's land development projects. Nearly 85 percent of the oil palm area is located on Peninsular Malaysia; however, area in East Malaysia is growing at a faster pace. In the future, Malaysia's Government hopes to continue expansion of palm oil production by improving yields rather than increasing oil palm plantings.

Malaysia's Federal Land Development Authority (FELDA) is the largest producer of palm oil in Malaysia, operating over 500,000 hectares of the nearly 2 million hectares devoted to palm oil production. FELDA is committed to opening new lands to cultivation and administers the 1990 privatization scheme. This scheme is managed estate-style by private companies, instead of individual landowners, but participants are given shares in the company. Purchases of the shares are deducted from their bonuses and dividends and not from their monthly wages.

The Palm Oil Research Institute of Malaysia has been researching ways to increase demand for palm oil. Demand in recent years has not kept pace with rapid supply expansion. Some of the research effort is focused on non-food uses of palm oil. For example, a diesel fuel substitute is already in the final stage of testing with large-scale field trials scheduled for buses. Previous tests using palm fuel in taxis had satisfactory results. Also, nine factories will be set up this year to make "polyols" - a base product used in the manufacture of polyurethane. A pilot plant is expected to be operational soon.

Timothy Rocke (202) 382-9172

TABLE 20

MALAYSIAN PALM OIL PRODUCTION BY REGION

### IN THOUSAND METRIC TONS

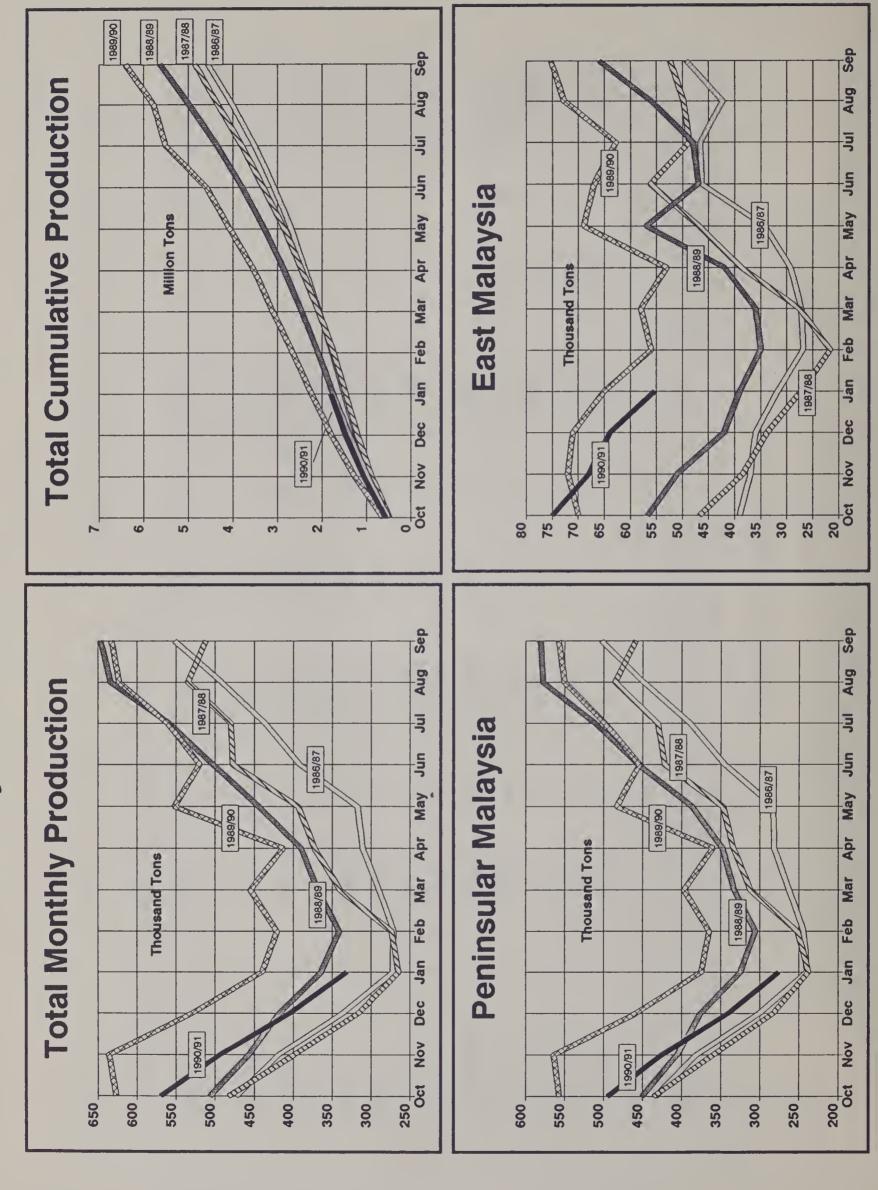
MONTH	PENIN. MALAYSIA	EAST MALAYSIA	TOTAL	PENIN. MALAYSIA	EAST MALAYSIA	TOTAL	PENIN. MALAYSIA	PENIN. EAST MALAYSIA MALAYSIA	TOTAL
		1988/89			1989/90			1990/91 *	
October	451	57	208	557	02	627	495	75	570
November	406	52	458	564	72	929	426	89	494
December	376	43	419	459	77	530	341	64	405
January	325	39	364	375	65	440	276	55	331
February	306	35	341	365	99	421			
March	333	36	369	397	28	455			
April	348	42	390	360	53	413			
May	387	22	444	483	69	552			
June	456	47	503	454	29	521			
July	511	48	559	499	63	299			
August	578	99	634	550	73	623			
September	581	99	647	257	75	632			
			**						38
TOTAL	5,058	578	5,636	5,620	792	6,412		-	6,200 f

<sup>\*</sup> Monthly February - September data for 1990/91 are not estimated yet.

March 1991

Production Estimates & Crop Assessment Division, FAS, USDA

# Malaysian Palm Oil Production



Production Estimates & Crop Assessment Division, FAS, USDA

### YUGOSLAV GRAIN SITUATION AND OVERVIEW

Yugoslavia's 1990/91 total grain production is estimated at 14.0 million tons, down 2.0 million or 13 percent from 1989's harvest. The decline in production is primarily attributed to the effect of last summer's drought on coarse grains, particularly corn. Corn production fell 30 percent from the previous year because of the dry weather, its fourth consecutive dry summer. Grain area has fallen approximately 5 percent and yields have risen 7 percent since the early 1980's.

The outlook for 1991/92 winter grains is uncertain. Planted area is up slightly from last year, but most seeding was done after the optimal planting period. Low temperatures in late January and early February may have adversely affected wintering grains, especially those lacking adequate snow cover.

### Wheat

Yugoslav 1990 wheat production is estimated at a record 6.3 million tons, 13 percent larger than the 1989 crop. The hot, dry weather during July 1990 adversely affected other crops, but proved beneficial to wheat. Low soil moisture reserves in the Autumn of 1990, resulting from the summer's drought, prevented farmers from sowing 1991 wheat during the optimal period (October 1-25). However, sown area is reportedly up marginally from 1990's level. Production areas in the north received precipitation, allowing farmers there to plant up to 70 percent of their crop. Southern growing areas however, were sown after the optimal period. The late start may result in lower yields. Much of Yugoslavia received frequent precipitation and warmer-than-normal temperatures during December 1990 and the first half of January 1991. This improved soil moisture reserves and was favorable for the wintering wheat crop.

Use of quality seeds and fertilizers during sowing last fall was negatively impacted by Yugoslavia's weakened economy. Production credits given to farmers declined in 1990 and as of February 1991 many farmers had yet to be paid for crops delivered in 1990. In addition to the lack of buying power caused by the deferred 1990 payments, the government has proposed changes in the subsidy system that will increase the prices of fertilizers, quality seed, and plant protection chemicals. Subsidies previously went to industries producing inputs, but the proposal, if enacted, will likely cause subsidies to go to growers of selected commodities. Without industry subsidies, input prices could escalate. Additionally, price premiums will not be paid for any type of grain, as grains are not one of the proposed select commodities.

Despite farmers' dissatisfaction with the 1990 wheat purchase price and delayed payments for their production, area sown to wheat reportedly has increased, reflecting farmers' perception that the federal or republican governments will always assist in purchasing wheat, as it is considered a vital commodity. The increased area also shows that wheat remains a competitive crop. The use of wheat as a feed grain has more than doubled, in part due to the drought-stricken 1990 corn crop. Farmers would rather utilize wheat they already have than purchase corn in the midst of cash liquidity problems.

### Coarse Grains

Yugoslav 1990 coarse grain production is estimated at 7.6 million tons, down 28 percent from the previous year and down almost 31 percent from the 5-year average. Corn is by far the most common coarse grain grown in Yugoslavia. Corn made up about 47 percent of total 1990 grain production even after a nearly 30 percent reduction due to the 1990 summer drought. Corn contributed nearly 60 percent to 1989 total grain production and contributed more towards the total than wheat in both 1989 and 1990. The 1990 corn harvest was the smallest since 1965, primarily as a result of the combination of heat stress (especially during July) and reduced soil moisture supplies. Eastern and southern growing areas were especially hard hit. A four percent reduction in planted area also contributed to the decline. Soil moisture in Yugoslavia was only 50 percent of normal during the 1990 growing season. Precipitation for the period October through December 1990 has raised soil moisture to normal levels for the 1991/92 crops. Drought conditions for the fourth consecutive year adversely affected production of hybrid seed corn and depleted stocks, requiring imports from the United States.

Although area planted to corn in 1991 is dependent on April and May weather, a slight increase from last year is expected. The primary reason for this is a decreased interest in oilseeds and sugar beets. In 1990, farmers had difficulty selling these commodities to the processing industry. Additionally, payments for most farmers were delayed for several months and some farmers have yet to be paid. This has reportedly caused farmers to prefer to plant corn, which they can use on their own farm, rather than crops that have to be delivered to the processing industry. The processing industry is having liquidity problems, due to the economy, and will likely have difficulty paying producers for crops.

### Overview

Yugoslavia produces 13 percent of Eastern Europe's grain, 12 percent of its oilseeds, and 1 percent of its cotton. Agriculture is diversified, though corn and wheat are produced far more than other grains. Slightly larger than Wyoming, Yugoslavia borders Albania, Austria, Bulgaria, Greece, Hungary, Italy, Romania, and the Adriatic Sea. Only 28 percent of the land is arable. The Sava and Danube rivers are located near the Pannonian Plains in Vojvodina province, which stretch northward towards the large Hungarian Plain. The climate is temperate, with hot, dry summers, and mild, rainy winters along the coast.

Agriculture, including fisheries and forestry, comprises only 14 percent of Yugoslavia's economy and employs about 20 percent of the population. More than 80 percent of the agricultural land is privately owned. Most production occurs on the fertile plains in Vojvodina. Because of the mountainous topography, large-scale production is limited in most of the country. Private sector farmers hold 83 percent of the arable land, and make up more than 90 percent of the agricultural labor force. There are many small land holdings in Yugoslavia, with the maximum size being about 10 hectares, however the average private farm is 3 hectares, and may contain 10 plots. This fragmentation is a cause for low productivity in the private sector. Other factors include lack of inputs and investment.

Jay Kress (202) 475-5142

TABLE 21

### YUGOSLAV GRAIN: HARVESTED AREA, YIELD AND PRODUCTION

	Area	Yield	Production
	(1000 Ha)	(MT/Ha)	(1000 Tons)
Wheat			
1979/80	1,524	2.96	4,512
1980/81	1,516	3.36	5,091
1981/82	1,386	3.08	4,270
1982/83	1,558	3.35	5,218
1983/84	1,609	3.43	5,524
1984/85	1,458	3.84	5,595
1985/86	1,348	3.59	4,839
1986/87	1,346	3.55	4,776
1987/88	1,455	3.62	5,272
1988/89	1,506	4.18	6,300
1989/90	1,479	3.79	5,599
1990/91 Mar	1,495	4.25	6,359
Coarse Grains		The Language Son	
1979/80	2,815	3.94	11,085
1980/81	2,779	3.79	10,521
1981/82	2,859	3.82	10,918
1982/83	2,762	4.40	12,152
1983/84	2,766	4.24	11,716
1984/85	2,805	4.41	12,382
1985/86	2,862	3.82	10,933
1986/87	2,834	4.79	13,569
1987/88	2,614	3.70	9,671
1988/89	2,668	3.24	8,646
1989/90	2,693	3.89	10,474
1990/91 Mar	2,637	2.91	7,663
Corn			
1979/80	2,251	4.48	10,084
1980/81	2,202	4.23	9,317
1981/82	2,297	4.27	9,807
1982/83	2,246	4.95	11,126
1983/84	2,264	4.73	10,719
1984/85	2,331	4.84	11,293
1985/86	2,400	4.12	9,896
1986/87	2,369	5.29	12,526
1987/88	2,218	4.00	8,863
1988/89	2,269	3.39	7,697
1989/90	2,268	4.15	9,415
	2,200	7.10	0,710

### YUGOSLAV GRAIN: HARVESTED AREA, YIELD AND PRODUCTION

	Area	Yield	Production
	(1000 Ha)	(MT/Ha)	(1000 Tons)
Barley			
1979/80	291	2.17	631
1980/81	324	2.55	826
1981/82	310	2.32	720
1982/83	284	2.36	669
1983/84	280	2.36	661
1984/85	271	2.76	748
1985/86	264	2.67	704
1986/87	267	2.63	703
1987/88	213	2.37	504
1988/89	222	2.77	615
1989/90	242	2.90	702
1990/91 Mar	245	2.82	692
Oats			
1979/80	209	1.35	283
1980/81	194	1.52	294
1981/82	194	1.60	311
1982/83	176	1.53	269
1983/84	168	1.48	248
1984/85	153	1.67	256
1985/86	151	1.67	252
1986/87	152	1.71	260
1987/88	140	1.66	232
1988/89	135	1.87	253
1989/90	144	1.94	279
1990/91 Mar	139	2.01	280
Total Grains			
1979/80	4,347	3.60	15,630
1980/81	4,304	3.64	15,654
1981/82	4,254	3.58	15,230
1982/83	4,329	4.02	17,412
1983/84	4,384	3.94	17,280
1984/85	4,272	4.22	18,013
1985/86	4,219	3.75	15,808
1986/87	4,189	4.39	18,393
1987/88	4,079	3.68	14,991
1988/89	4,183	3.58	14,983
1989/90	4,178	3.85	16,103
1990/91 Mar	4,138	3.40	14,059

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